RAISE YOUR HAND

Strengthening student participation in sexual education lessons in the Upper East Region of Ghana

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MASTER THESIS

by

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EXECUTIVE SUMMARY

This rapport shows that personal relevance does not stimulate Ghanaian students to participate actively in sexual education lessons. Even tough increasing personal relevance of a behaviour has been shown in Western samples to increase intrinsic motivation and decrease resistance, the current study showed an opposite effect. After a generation of personal relevance to sex education, students in the Upper East Region of Ghana were less intrinsically motivated to gain information about sexuality. Students simultaneously showed more resistance towards sex-related topics, and experienced more discomfort to speak during sexual education lessons.

On a macro level this rapport provides insight in cross-cultural research. The reversed results indicate a necessity for an integrationist cross-cultural approach on behavioural change, whereby psychological theories are modified to specific cultural characteristics.

Goal

This study aimed to strengthen student participation in sexual education lesson in the Upper East Region of Ghana, eventually for the benefit of adolescent sexual and reproductive health and rights.

Universal psychological theories were used to analyse students' participation level, and subsequent objective psychological strategies were adopted to bring about change in students' participation behaviour. In cross-cultural psychology this approach is known as universalistic.

Consideration of existing literature generated explanatory variables for students' participation level. Questionnaires with open-questions spread amongst Ghanaian youth verified the explanatory variables. Subsequently, students' intrinsic motivation was identified as facilitator for active participation, whereas both resistance towards sex-related topics, and discomfort to speak about sexuality in open public were categorized as barriers for students' participation. Afterwards, an intervention was built to target intrinsic motivation, resistance and discomfort.

Intervention

To empower student participation a lesson about sexual education was created. This lesson was delivered at Junior High Schools in Bolgatanga, and lasted for 15 minutes. The lesson included:

- Self-persuasion workshop: students generated a relation between the importance of sexual education and their own life goals.
- Exposure to public speaking about sex: students discussed the importance of sexual education with peer students, and vote their ideas in the classroom.
- Physical movement: students stood up, and changed chairs.

The effect of the intervention was measured through a questionnaire. The measurement used a control group – a normal sexual education lesson – whereby students filled in the same questionnaire as in the intervention group. Results were compared.

It was assumed that the intervention lesson would enlarge student actual participation, and simultaneously stimulate students' intention to participate actively. Another expectation was that the lesson would lead to more intrinsic motivation, less resistance, and less feelings of discomfort.

Effect

Students were surprisingly less intrinsically motivated, while they showed more resistance to sex-related topics as well as more feelings of discomfort towards speaking about sexuality in a classroom, after they generated a personal relevance to sexual education. Although the effect is contrary to the expectation, the used psychological theories targeted students' intrinsic motivation, resistance, and feelings of discomfort. The results also proved significant relations between those attitudes (see Table 1, p. 41).

The reversed effect can be explained by the focus on personal relevance within a collectivistic cultural context. Collectivistic oriented people value collectivistic goals over personal goals. Triggering personal appliance to sexual education could have bored confirmation to reverse subjective norms, thereby leading to less intrinsic motivation, more resistance and more discomfort.

Moreover, the intervention did not change students' actual participation behaviour nor students' willingness to participate actively. Simultaneously, willingness to participate did not relate to intrinsic motivation nor resistance. This indicates that students' participation level could be explained through different variables.

Recommendations

1. The current sexual education lessons delivered by the Youth Harvest Foundation already appeal to students. An acknowledgement of intrinsic motivation as a facilitator for student participation, and an awareness of barriers as students' resistance as well as discomfort to speak about sexuality is however useful, might the Foundation aim further improvements of the sexual education programme.

2. This project theoretically illustrated that a universalistic use of psychological theories does not always fit the environment. In contrast, an integrationist approach in which existing psychological theories are modified to meet the characteristics of the cultural context, would therefore be preferable. With an integrationist approach, the following concepts can be explored:

- Further research can examine the effect of self-persuasion on students' motivation, resistance and discomfort through increasing relevance of participation in sexual education from a societal perspective.
- If intrinsic motivation does not show a relation to actual participation behaviour, might the students be driven by an extrinsic motivation. Continuing research can explore the influence of other explanatory variables on students' actual participation behaviour.

1. INTRODUCTION

The introduction shows how the Youth Harvest Foundation is committed to sexual and reproductive health and rights in Ghana, followed by an overview of the current research. The introduction also provides the focus of the research including the added value.

1.1 Sexual and reproductive health and rights

Sexual and reproductive health and rights is an essential component of the universal right to the highest attainable standard of physical, mental and social well-being relating to the sexual and reproductive system. Human right standards require respect, protection and fulfilment regarding women's and men's right to enjoy their sexual and reproductive health as well as to have accessibility to sexual and reproductive health information and services (WHO, 2018)

Among other Non-Governmental Organisations the United Nation Reproductive Health and Rights agency (UNFPA), World Health Organisation and Amnesty International are committed to strengthen sexual and reproductive health and rights among the world. These organisations strive to meet the needs of diverse populations, particularly the most vulnerable.

Adolescents across sub-Saharan Africa are vulnerable to adverse sexual and reproductive health and rights. Though progress has been made, these regions lags behind other world regions on measures of sexual and reproductive health. In 2014 sub-Saharan Africa is home to both 63% of maternal deaths and 89% of HIV infections transmitted from mothers to infants (UNFPA, 2014). Adolescents across sub-Saharan Africa are also exposed to high risks of early sexual debut, forced sex, sexually transmitted infections, unintended pregnancies, and child marriages (Doku, 2012).

One of the countries in sub-Saharan Africa is Ghana. Among sexually active unmarried Ghanaian women age 15-19 only 45% was using contraceptives in 2014. Consequently, 14% of women within this age range became pregnant (GSS-DHS, 2015), with all the consequences that will entail. Teenage pregnancy is, for example, associated with an early school dropout and poverty in adult life (Macleod & Tracey, 2010). Besides pregnancy risks, unsafe sexual behaviour goes with the risk of sexual transmitted infections, including HIV. The national HIV prevalence is put at 2% in 2014 (GAC, 2014).

The former statistics imply a vulnerability to adverse sexual and reproductive health and rights among Ghanaians.

1.2 Youth Harvest Foundation

The Youth Harvest Foundation is a Non-Governmental Organisation located in Bolgatanga in the Upper East Region of Ghana. The Foundation aims to empower the development of the Ghanaian youth and is committed to sexual and reproductive health and rights. The foundation endorses the belief that an understanding of sexual and reproductive health will reduce sexual violence, sexually transmitted infections and teenage pregnancies. Subsequently an understanding will decrease the likeliness of dropping out of school.

The Foundation has built up a right- and evidence-based comprehensive sexual education programme to strengthen understanding of sexual and reproductive health and rights. This programme emphasize on adolescents' knowledge, skills, attitude and values to support their enjoyment of sexuality – physically, emotionally, individually, and in relationships. It provides the necessary information that adolescents need to take informed decisions on sexuality and sexual behaviour (Krugu, 2016; IPPF, 2010). The sexual education programme includes 13 lessons; each lesson covers a different subtopic (e.g. *High risk situations that can result in unprotected sex*; *setting personal limits*).

1.3 Stakeholders

There are several stakeholders at various levels of the Ghanaian society involved with the promotion of sexual and reproductive health via comprehensive education programmes.

At the national level, the National Population Council (NPC), Ghana Health Service (GHS) and Development Partners (DPs) have recognised the need to streamline the provision of comprehensive sexual education to equip the Ghanaian youth with knowledge, skills, attitudes and values they need to determine and enjoy their sexuality (UNFPA, 2017). This recognition might result in an implementation of comprehensive sex education within the national school system of Ghana.

At the community level as well as at the school level teachers are important agents; they are recommended as the main implementers of the sexual education programmes. Teachers are decisive for a supportive and conducive environment to promote adolescents' sexual and reproductive health and rights (Krugu, 2016). Even stronger, teachers' supportive attitude and willingness to teach issues concerning sexuality is the main element to achieve effective outcomes (Bowden, Lanning, Pippin & Tanner, 2003). For that reason it is important to look into their position: how do teachers relate to sexual education?

1.4 Teachers' position

Only health teachers are teaching the comprehensive sexual education delivered by the Youth Harvest Foundation, since they are regarded to be familiar with both the content of the programmes and speaking out loud about themes concerning (physical) sexuality.

Even though cultural traditions and religious convictions within the region emphasize on abstinence from premarital sex (van der Geugten, van Meijel, den Uyl, & de Vries, 2015), health teachers in the Upper East of Ghana do see the need of sexual education programmes. Interviews with health teachers in the Bawku West District showed that teachers consider it as their role to let the youth understand their sexuality.

Teachers defined the sexual education programme delivered by the Youth Harvest Foundation as educative. They defined the programme as very helpful for the students; sexual education creates ways to think about the meaning of sexuality. Besides, according to health teachers, the programme helps adolescents to protect themselves and take care of their own limits.

In sum, health teachers are enthusiastic about the programme.

1.5 Students' reaction

Nevertheless, during interviews 6 out of 7 health teachers pointed out student shyness during sexual education lessons, whereof one only mentioned girls' diffidence. Moreover earlier interviews showed that teachers doubt student participation during the sexual education lessons (Skoruppa, 2015). Health teachers mentioned that if students do not participate actively, teachers can only guess what students are going through. Shy students make it therefore harder for teachers to deliver sex education.

Student shyness is not only remarked as a difficulty for teachers; student eagerness to learn is in contrast identified as an enhancement for teachers delivering sex education (Van der Geugten et al., 2015). On top of that, participation facilitates learning. Plus, student questions for clarification about subject matter and student responses to teacher content questions serve student's critical thinking (Foster, Krohn, McCleary, et al., 2009).

Altogether, student participation is beneficial for both teachers' experience of teaching sex education and the extent to which students gain from sexual education programme. Students' participation enhances outcomes of the sexual education lessons, with an

empowerment of sexual and reproductive health and rights among adolescents in Ghana as a consequence.

1.6 Goal

The current research therefore focused on students' engagement during sexual education lessons. The central question was: **How can students' level of participation during sexual education lessons be strengthened?**

In order to find a theory driven strategy to strengthen students' contribution during the lessons the research first went deeply into barriers and facilitators for active participation during sexual education. This resulted in different explanatory variables, which were subsequent verified through an questionnaire with open questions spread amongst Ghanaian youth. The explanatory variables served as a template for developing an intervention as a means to actual enlarge student engagement, for the benefit of adolescent sexual and reproductive health and rights.

2. ANALYSIS OF EXPLANATORY VARIABLES

This section discusses explanations for students' level of participation during sexual education lessons. It starts with a lightly touch on the cross-cultural psychological approach, followed by a short analysis of students' sexual attitude and behaviour related to the transitional stage of adolescence. Subsequently other explanatory variables are discussed. The analysis served as a starting point to build up an intervention to strengthen student participation during sex education.

2.1 Cross-cultural approach

Since a Dutch did research within a Ghanaian context, a universalist approach was used to analyse students' level of participation during sexual education lessons. In cross-cultural psychology a universalist approach follows the slogan: "apparently different, but really the same" (Shweder & Bourne, 1982 , p. 98). The universalist has the intention to discover abstract, nomothetic, and comprehensive laws of human functioning, and psychological theories and concepts are identified as objective and universal (Kim, Park & Park, 2000).

The cultural context was however not eliminated from the research design. After all, culture provides a framework for perceiving what is relevant and salient (Kagitcibasi, 1996). In other words, the cultural context qualifies the applied value of different universalistic psychological theories. The cultural context can thus not be neglected.

So, with an awareness of the cultural context, universal theories were used to analyse adolescents' level of participation during sexual education lessons in Ghana.

2.2 The transitional stage of adolescence

Adolescence is the period between childhood and adulthood encompassed by changes in social, physical and psychological development (Ernst, Pine & Hardin, 2006). This period meets a relatively high-risk stage of life for health, since adolescents experiment with a variety of behaviour choices with considerable risk for their health (Jessor, 1984). Adolescent risk behaviour includes engaging in unprotected sex resulting in unintended pregnancies and sexual transmitted infections (Eaton Kann, Kinchen et al., 2006).

Adolescents know that certain risk behaviour cause negative outcomes (Moore, Gullone & Kostanski, 1997), though they fail to feel personally vulnerable to the negative consequences. Adolescents sometimes perceive themselves as being at less risk than do similar others. This tendency is known as *unrealistic optimism* (Weinstein, 1980).

Even though adolescents engage in unprotected sex, on the account of *unrealistic optimism* adolescents can be indifferent to its negative consequences. This raises the question: why would adolescents participate actively in sexual education lessons if they feel unvulnerable to negative effects?

On one hand adolescents represent heightened curiosity and exploration of sexuality (Steinberg, 2008). According to students who joined sexual education lessons in the Upper

East of Ghana it is valuable to pay attention, since sex education generates understanding, skills and knowledge (Youth Harvest Foundation, 2017). They consider sexual education lessons to be interesting. Students' eagerness to learn about sexuality might be an explanation for active participation during sex education lessons.

On the other hand adolescents can be influenced by subjective norms. Subjective norms deal with what valued others think about a subject or activity. The dominant ideology in Bolgatanga emphasizes on abstinence from pre-marital sex (van Geugten et al., 2015). Discussing sexuality within an educational context can therefore meet people's disapproval. As a consequence, subjective norms might hinder students' level of participation.

Both the influence of students' motivation on participation in sex education and the influence of subjective norms will be discussed.

2.3 Intrinsic motivation

As pointed out above students in the Upper East Region of Ghana show an interest in gaining understanding, skills and knowledge about sexuality. Where does this interest come from? Are students intrinsically motivated to explore themes regarding sexuality?

Intrinsic motivation is the inherent tendency to engage in active, curiosity based exploration. Intrinsically motivated people are agentic and striving to learn; extend themselves and master new skills (Ryan & Deci, 2000). Intrinsic motivation requires personal interest; it is based in the inherent satisfaction of the behaviour. In contrast, extrinsic motivation is focused toward contingent outcomes that do not belong to the action (Deci & Ryan, 2008).

Intrinsic motivation derives from the self-determination theory, a macro-theory of human motivation, emotion and development that either facilitate or forestall people's inherent growth. Self-determination theory is of great importance in educational contexts. Students' intrinsic motivation is perhaps even the greatest resource educators can tap (Deci, Vallerand, Pelletier & Ryan, 1991).

On the account of the self-determination theory Ghanaian students' eagerness to gain understanding, master skills and get knowledge about sexuality through sexual education can be identified as an intrinsic motivation. This intrinsic motivation subsequent enhance high levels of participation during sexual education lessons.

An intrinsic motivation within an educational context is served by satisfied needs of competence, autonomy and relatedness. These needs are associated with academic engagement (Niemiec & Ryan, 2009). Fulfilled needs of competence, autonomy and relatedness thus strengthen students' intrinsic motivation, which indirectly result in higher levels of participation.

2.3.1 Competence and autonomy

Fulfilment of both competence and autonomy is even necessary to maintain intrinsic motivation. The need for competence refers to the experience that a particular action is effective. Students are competent when they feel able to meet the challenges of their schoolwork. Without a fulfilled need for autonomy, satisfied competence will not encourage intrinsic motivation. (Niemiec & Ryan, 2009).

Autonomy refers to the need to be self-initiating; to experience behaviour as voluntary and self-endorsed (Deci et al., 1991). Autonomous students willingly devote time and energy to their studies (Niemiec & Ryan, 2009).

In the case of students' participation in sexual education, it can be assumed that students' need for competence is fulfilled when the content of the lessons is clear. Students' contented autonomy can be classified as the self-confidence to remark voluntary during sex education lessons.

Satisfied needs of competence and autonomy serve students' intrinsic motivation, which subsequently result in higher degrees of participation in sex education lessons.

2.3.2 Relatedness

If students do not perceive sexual education lessons with a personal interest, feelings of relatedness can still make those students intrinsically motivated; a fulfilled need for relatedness can indirectly serve high levels of participation.

The need for relatedness refers to the need to feel belongingness and connectedness with others (Deci & Ryan, 2008). Students' need for relatedness is deeply associated with the feeling that the teacher genuinely values hem or her (Niemiec & Ryan, 2009).

A feeling of relatedness can teacher's active behaviour turn into a prompt. So, if students feel valued by their teacher, a highly active teacher can cause high levels of participation

among students. Students will even be intrinsically motivated to participate actively due a satisfying connection with others.

2.3.3 Summary

In sum, perceived clearness of the content of sexual education lessons and the self-confidence to remark freely during those lessons as well as an idea of belongingness to others contribute to students' intrinsic motivation to explore sexuality. If all three needs are fulfilled students are more likely to be intrinsically motivated, which will result in higher level of participation during sexual education lessons.

2.4 Social norms

Intrinsically motivated students can be regarded as ones with a positive attitude towards sexual education lessons, though a person's attitude is a complex mental state. It involves beliefs, feelings and values (Altman, 2008) and correlates significant and positive with existing subjective norms, ranging from *r =.40* to *r =.91*[1] (Greene, Hale & Rubin, 1997).

Members of a collectivistic culture tend to value subjective norms more than the ones living in an individualistic culture (Park, 2000). Ghana is regarded as relatively collectivistic (LeFebvre & Franke, 2013). The influence of subjective norms is thus comparatively valuable among Ghanaian adolescents and students are not only driven by an intrinsic motivation to explore their own sexuality.

Subjective norms are a function of both a person's perception about other people's approval of his/her engagement in an activity as well as a willingness to comply with those persons (Park, 2000).

If students have a willingness to conform to others' disapproval concerning sexual education, while they are finding themselves attending sex lessons, resistant behaviour can be the consequence.

2.4.1 Resistance

The clear core of the definition of resistance is the reaction against change. Resistance entails a state in which people aim to reduce attitudinal change and maintain the existing

[1] A correlation coefficient represents the strengths of the linear association between two variables. The coefficient can take a value from −1 to +1, whereas +1 indicates the strongest possible agreement and -1 the strongest possible disagreement between the variables (Taylor, 1990).

attitude. One of the most important moderators within this process is attitude strength or extremity (Knowles & Linn, 2004).

Student attitude concerning involvement in sex education depends on the interrelation between intrinsic motivation and subjective norms. What do students value more? If students perceive an intrinsic motivation as more valuable than a confirmation to negative subjective norms, it is not likely that they show any resistant behaviour during sex education. In contrast, if students prefer to comply with negative social norms regarding involvement in sex education over an intrinsic motivation to gain information about sexuality, students might show resistance towards sex education, resulting in selective avoidance.

Selective avoidance is the tendency to avoid messages or activities contradicting one's attitude (Knobloch-Westerwick & Meng, 2009). This tendency can be regarded as a strategy for decreasing the dissonance that people experience due to inconsistencies. Experiencing inconsistency goes with an uncomfortable feeling. Therefore people aim to reduce dissonance, explained by the cognitive dissonance theory (Festinger, 1962).

So, if students are involved in sex education, while its content is not in line with reverse norms, students can end up avoiding participation. This strategy meets low levels of engagement in sex education. Resistant behaviour is in contrast with the intrinsic motivation to participate actively. The question is now: which people in particular can influence students' relation to involvement in sex education?

2.4.2 Parents

An introduction of sexual education lessons in Ghanaian schools has been met with disapproval of parents (Owusa, 2012). If teachers start talking about sex, parents would fear that teachers give their children the lances to start sexual experiences (Skoruppa, 2015). Even though sexual behaviour of youths has changed into premarital sex due the influence of modernity and the availability of new media in the Upper East Region of Ghana, ethnographic research mapped out parents' emphasis on abstinence from premarital sex (Van der Geugten, 2017).

"In the locally dominant Frafra culture, it is important to continue the patrilineal line through new-born children in order to satisfy the ancestors and the spirits and to preserve the family's reputation" (Van der Geugten, 2017, p. 38). Moreover virginity is traditionally highly

valued by in-law families. It is therefore that parents want their children to abstain from premarital sex (van der Geugten, Meijel, den Uyl & de Vries, 2013).

In addition, Junior High School students indicated that sexual health education was missing at home (Youth Harvest Foundation, 2017). Biddlecom, Awusabo-Asare & Bankole (2009) already suggested that parent-child communication about sex-related matters is not very common in Sub-Saharan Africa; it is fraught with discomfort. Children fear that parents might think that they are sexually active if they raise sex topics (Holland, Mauthner & Sharpe, 1996).

Nevertheless, there is substantial evidence that if parents openly discuss sexual matters with their children, children will gain more confidence in discussing sexual matters (Wellings, Nanchanal, Macdowell et al., 2001). This might result in a higher level of participation during sexual education lessons.

So, parents' negative relation to discussions concerning sexuality can have a negative influence on adolescents' relation to sex education. This might result in (selective) avoidance of participation in sex education lessons among adolescents, which goes with low levels of participation.

2.4.3 Peer students

Besides parents also peer students influence others experience of sexual education. Studies of peer influence have found it to be an important factor in different domains, including educational performance, aspirations and sexual attitudes and behaviour. Individuals are likely to conform with the behaviour, attitude and values from peer students (Lashbrook, 2000).

Junior High School students mentioned the noise peer students make during some sexual education lessons. Peer students would not take the lessons seriously. Some of them even start laughing. Furthermore some interviewed students called attention to classmates' attitude regarding sexual education: peer students would not want to hear information about sexuality because it would not be in line with their thoughts about sexual health (Youth Harvest Foundation, 2017).

Students negative relation to an engagement in sexual education can influence other students opinion about sex education negatively, since students adopt their peer students behaviour and attitude. This can lead to (selective) avoidance of participation during sexual education lessons, resulting in low levels of participation.

2.4.4 Summary

So, taken together, both parents' attitude and peer students' relation towards discussing sexuality in education lessons can influence one's level of participation during sex education. Former reference groups' negative relation to discussing sexuality within an educational context, can make students adapt negative attitudes, with selective avoidance of the sexual education programme as a consequence. This leads to low levels of participation.

2.3 Overview

The explanatory determinants discussed above come all together in a process model (see Figure 1). The process model provides an overview of the determinants that might predict students' degree of participation during sexual education lessons. To verify discussed determinants a pre-test will be done.

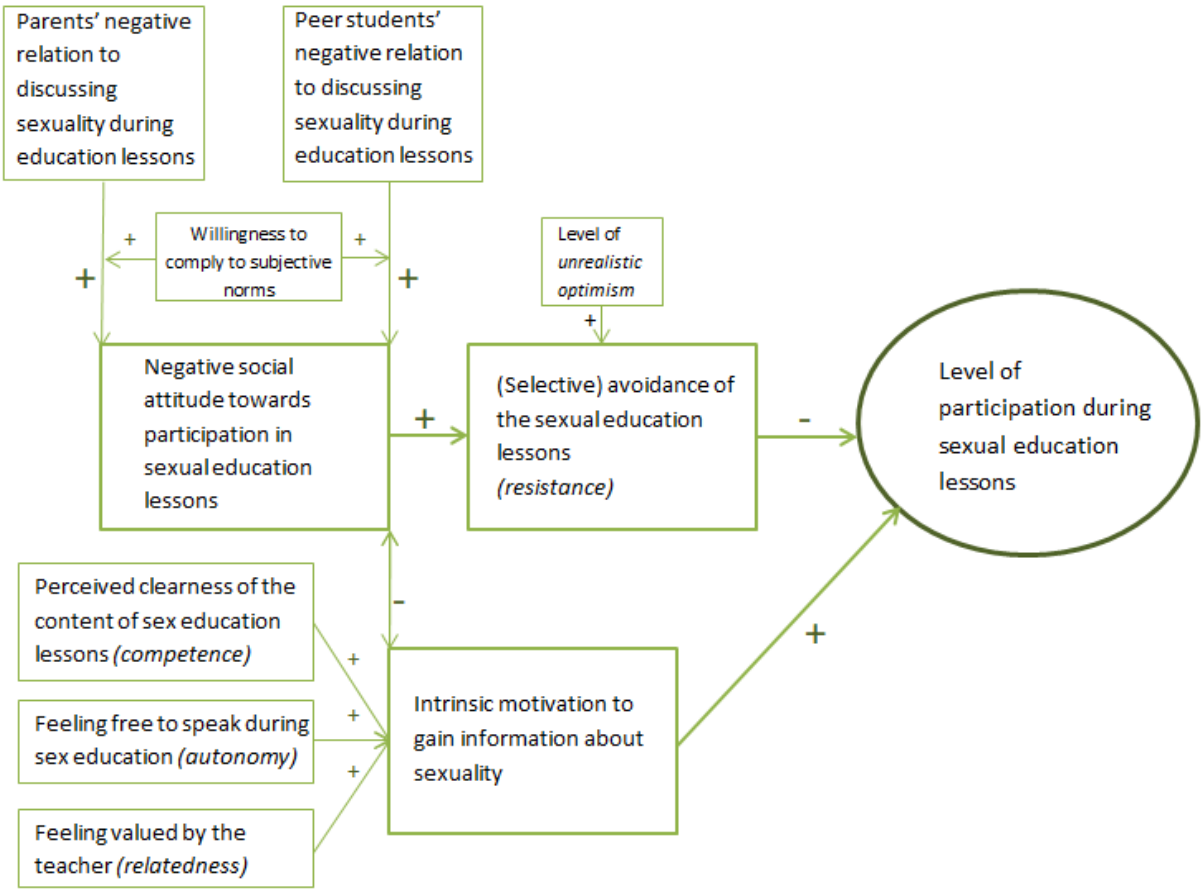
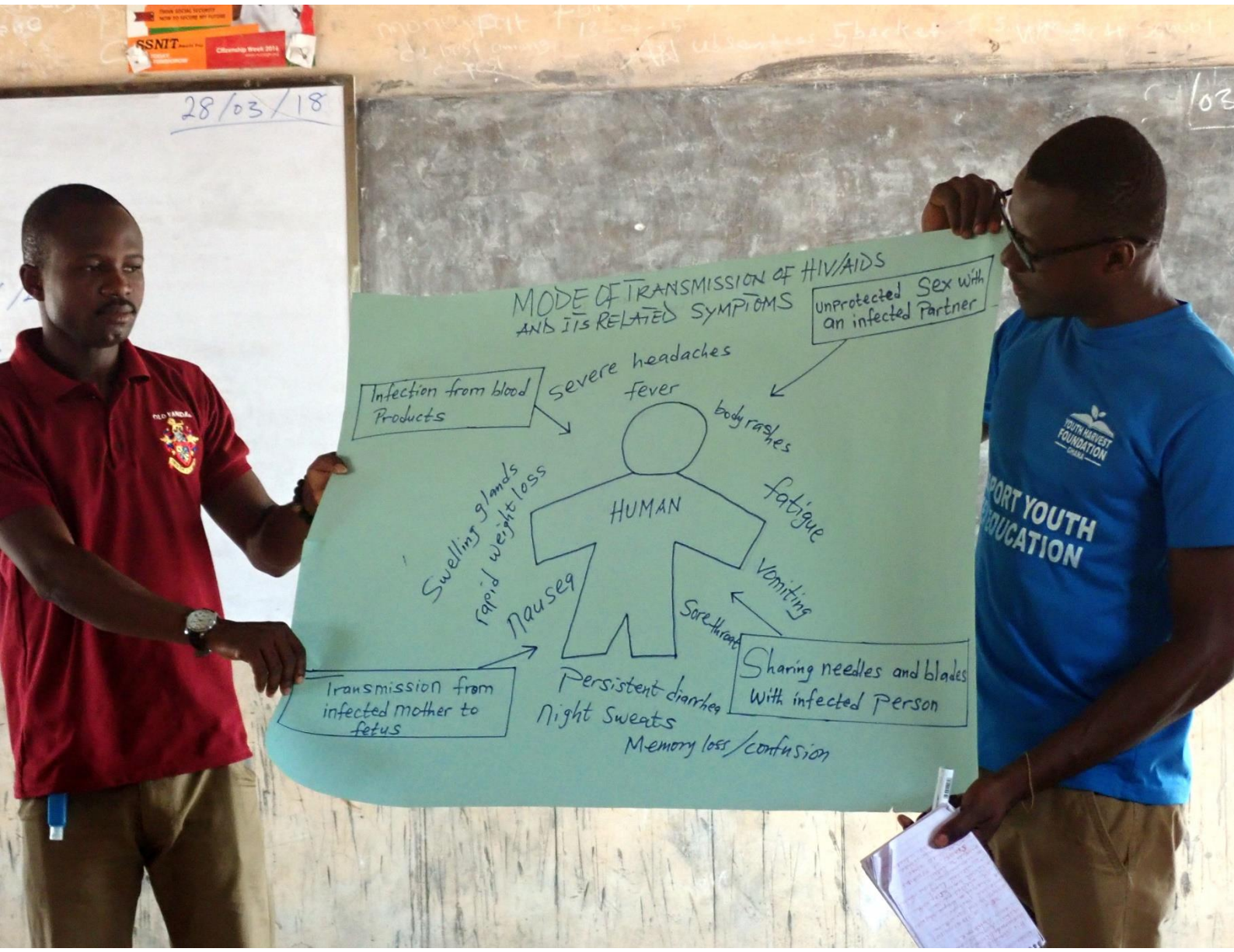


Figure 1. The process model. "+" reflects a positive effect from one determinant on another, whereas "-" follows a negative effect.

3. PRE-TEST

The pre-test examined to what extent intrinsic motivation, resistance and adverse subjective norms explain levels of participation during sexual education. The pre-test included a questionnaire. After the pre-test, an intervention would be able to effectively pinpoint the most salient determinants, thereby directly changing students' behaviour.



3.1 Goal

The pre-test provided information about intrinsic motivation, resistance and subjective norms that genuinely have influence on students' willingness to participate in discussions about sexuality. Simultaneously the most modifiable determinants were showed.

The pre-test focused on the strength to speak about sexuality. Lastly, asking for clarification about subject matter and responding to content questions serves people's critical thinking in general (Foster et al., 2009). For that reason it does not matter whether students are driven by a religious motivation or a personal motivation to explore sexuality. It is students' willingness to participate in discussions about sexuality that counts.

3.2 Method

7 Ghanaian adolescents in Bolgatanga, aged 11-19, participated in the research. Among them were 3 boys and 4 girls. They were recruited within the personal environment of the researcher. The participants come from different families and support different religions; Christianity as well as Islam.

Because sexuality could be a taboo topic within the region, participants were asked to fill in a questionnaire with open questions. It was assumed that participants answer more honestly if they can write their answers on paper anonymously instead of answering questions in person. Besides, the introduction of the questionnaire emphasized on participant anonymity by guaranteeing it as follows: *"Anonymity is assumed. Except for you, nobody will read your answers."* Furthermore participants were asked to put their answers in an envelope without any identifying information. Other sexuality-related studies also used the envelope to provide an anonymous return for the questionnaire (Davies, 2004; Edgardh & Ormstad, 2000). The current study thus assured anonymity. Participants received the questionnaire and the envelope together.

The questionnaire started with questioning age and gender, followed by the question whether participants do receive sexual education lessons at school or not. If so, participants wrote down themes they have discussed during sex education.

The questionnaire continued with questions that cover the intrinsic motivation to discuss sexuality (e.g. *"Do you think it is important for you to gain information about sexuality? Why?/ Why not?)*, a possible resistance towards sex discussions *(e.g. "Which themes*

regarding sexuality are not worth it to discuss?"), and the subjective norm to talk about sex topics (e.g. *"Do you discuss sexuality with your peer students? Why/ Why not?")*. The questionnaire as a whole is attached (see Appendix 1).

Participants' answers were reviewed in the light of a willingness to participate in discussions regarding sex topics. If participants affirmed to the importance of gaining information about sexuality, their answer automatically represented a motivation, even if the reason for the motivation was not in line with the goal of comprehensive sexual education programmes. An answer such as *"it is important to gain information about sex, because it helps us to stay away from early sex"* was regarded to be as motivated as *"it is important to gain information about sex, because it shows something that is important in our health"*.

The answers were coded into 6 categories on the base of different motivations. 1 represented the intrinsic motivation to participate in conversations about sexuality; 2 indicated a subjective norm to discuss sexuality (positive subjective norm); 3 symbolized a subjective norm not to discuss sexuality (negative subjective norm); 4 represented an unclear subjective norm; 5 referred to a resistant opinion; and 0 meant none of the former options. The coding scheme is attached (see Appendix 2).

3.3 Results

46.4% of all answers represented an intrinsic motivation to participate in discussions about sexuality. 23.2% of participants' answers showed a positive subjective norm to discuss sexuality, whereas 7.2% indicated a negative subjective norm. In addition, 5.4% of the answers showed an unclear influence of the subjective norm. Another 5.4% indicated a resistant opinion towards speaking about sexuality. The other 12.5% was not encoded into one of the discussed motivations.

3.3.1 Intrinsic motivation

The participants agreed on the importance to gain information about sexuality, however their reasons why they considered it to be important differ: some pointed out a personal motivation, whereas others showed a motivation to conform to existing subjective norms.

4 out of 7 participants touched upon the personal motivation to gain information about sexuality. One participant mentioned that information about sexuality teaches the importance of sex and its effect, while another participant identified the prevention function

of gaining sexual related information by stating: *"for me I say it is important because without sexual education you may end up having sex without protection"*.

In contrast 3 participants represented a motivation to comply with the subjective norm. One claimed that information is important because it would help to desist from sexual related activities and another perceived information about sexuality as a mean to do away with early sex. These reasons meet Bolgatanga's normative emphasize on abstinence from pre-marital sex.

3.3.2 Resistance

Even while all participants concurred with the importance of getting information about sexuality, 3 participants rather consider some themes not worth it to discuss. They mentioned the use of condom, the disadvantages of sex as well as the way how to have it.

The former shows resistance towards some sex topics. It indicates that part of the participants have a selective resistant attitude towards discussing sexuality. There is no clear relationship between the ones with a resistant attitude and the participants that want to comply to the normative standards.

3.3.3 Subjective norms

5 participants do discuss sexuality with peer students. One participant mentioned that peers counsel prevention from sex, but other answers did not show any confirmation to such subjective norms. In contrast, someone identified the added value of talking about sexuality with peers as follows: *"it helps to have knowledge on sex."*

There were yet 2 participants mentioning not to discuss sexuality with their peer students, because peers would make fun of them. One of these participants assumed that her peer students feel shy regarding sexuality, whereas the other participant regarded his peers to have more knowledge about the topic, compared to himself.

3.4 Conclusion

Eventually the pre-test illustrated a mixture of motivations among students: the intrinsic motivation was dominantly present among students, but some simultaneously represented a resistant opinion towards specific sex-related topics. The influence of subjective norms includes two different perspectives that need to be divided.

Participants touched upon the subjective norms dictated by the Ghanaian cultural- and religious beliefs on one hand, but there was also the norm to speak about sexuality. Even though participants presented a willingness to comply to cultural- and religious norms, the norm to speak about sexuality rather matter.

Firstly, because cultural and religious beliefs are too deep rooted and less modifiable (Buunk & van Vught, 2013), whereby an intervention would not be able to pinpoint cultural- and religious beliefs effectively.

On top of that, reasons to participate in discussions about sexuality within a classroom might differ between students, while speaking about sexuality can be(come) a norm among them.

Lastly, the former analysis chapter showed that students' self-confidence to speak freely about sexuality in a classroom – defined as a feeling of autonomy - serves students' intrinsic motivation, with active participation as a consequence.

Therefore the intervention will rather target feelings of discomfort to speak about sexuality, than selecting cultural- and religious beliefs.

At the end a class includes different students with different motivations and different feelings concerning engagement in sex education. Students are motivated to gain sex-related information, but some also have resistant opinions towards specific topics, while others experience discomfort to speak about sexuality. The question is thus: what kind of intervention creates a manner in which all different students can participate actively on the sake of their own motivation?

4. INTERVENTION

This section shows the selected way in which students' participation was strengthened as well as the concrete aspects of the intervention. Based on the results of the pre-test, the intervention targeted intrinsic motivation, resistance and discomfort to speak about sexuality.

4.1 Theoretical framework

The theoretical framework shows how change in student participation can be established. In order to achieve higher levels of participation, different theories were used to target students' intrinsic motivation, resistance as well as the fear to speak about sexuality.

4.1.1 Self-persuasion

Self-persuasion is a technique that entails people to persuade themselves to change their own attitude or behaviour. In a self-persuasion situation, people are convinced that the motivation for change comes from within. This has long-lasting effects (Aronson, 1999).

So, instead of telling students why it is important to participate in discussions regarding sexuality, students can preferably be asked why they perceive participation to be important. This strategy touches upon students' motivation to gain information about sexuality.

The pre-test showed that some students also have resistant opinions towards sexual education programmes. The self-persuasion technique however proved that even these students can be motivated to persuade themselves about the importance of sexual education programmes, declared by Festinger's cognitive dissonance theory.

The cognitive dissonance theory implies that dissonance arouses when an individual does something that runs counter to his or her own beliefs. To reduce this unpleasant feeling people are motivated to bring inconsistencies into greater harmony. If people need to convince themselves, they tend to focus on positive aspects of their action while they downplay the negative parts, to achieve cognitive consistency within (Festinger, 1962).

The fact of the matter is that students are required to participate in sexual education lessons. Through self-persuasion students justify participation. On the account of the cognitive dissonance theory, students will focus on the positive parts of sex education to convince themselves about the importance, even when the content of the programme counter their own beliefs.

To conclude, self-persuasion targets both students that are motivated to gain information about sexuality and those that have resistant opinions towards sex topics. The self-persuasion technique taps into students' intrinsic motivation to explore sexuality.

4.1.2 Exposure

Exposure is effective for reducing negative affective symptoms, such as shyness or anxiety (Rothbaum & Schwartz, 2002). Even more specific, exposure to public speaking may reduce anxiety for public-speaking (Anderson, Zimand, Hodges & Rothbaum, 2005).

So, if students are subtlety forced to openly sharing their ideas regarding sex-related topics, they will be exposed to speak about sexuality. This will stress students' autonomy, while it will lessen feelings of shyness or the fear to be insulted by peers through speaking about sexuality.

The pre-test showed that some students have an unfilled need for autonomy; they presented discomfort concerning speaking about sexuality in a classroom. Hence, the exposure technique pinpoint experienced discomfort.

4.1.3 Body movement

Furthermore, bodily postures and expressions are inherent components of emotional experience. When an individual adopt emotion-specific postures, they tend to experience the associated emotions, and their behaviour and attitudes towards situations are thereby influenced (Fuchs & Kochs, 2014). Even though the study is not replicated, Cuddy, Wilmuth, and Carney (2012) showed, for example, that when people stood in a *power position* – different forms of extension of the body – they performed better in a subsequent job interview.

Most Ghanaian students are already used to stand up if they want to say something, whereby they enlarge the body. The intervention will still emphasize on standing up, but it will also include other body movement to effectively reduce students' discomfort and shyness to speak about sexuality.

Numerous studies support the conclusion that physical activity has a positive influence on classroom behaviour, memory and concentration (Ratey & Hagerman, 2008); a good physiological condition mediate engagement (Katzell & Thomos, 1990).

So, the intervention lesson will include a physical activity. Firstly, to target feelings of discomfort, and secondly, to support student engagement in general.

4.1.4 Summary

Accordingly, it is expected that a combination of self-persuasion, exposure and body movement will result in increased levels of participation during sexual education lessons. Self-persuasion will increase students' intrinsic motivation while decreasing resistance, whereas exposure will reduce discomfort to speak. Body movement will increase engagement generally.

5. METHOD

This chapter discusses the effect measurement and puts attention to the research design. This section also gives information about the participants, procedure, and measurement tools.

5.1 Beyond theory into practice

The intervention took place at two different junior high schools in Bolgatanga. It replaced the normal sexual education lesson and lasted for 15 minutes. The intervention lesson involved three different parts, in which the former discussed theories were used to target intrinsic motivation, resistance and discomfort to speak about sexuality.

Firstly, students were asked to discuss their main goals in life with their neighbour for a few minutes. After this discussion the teacher asked five students about their goals in life. The students needed to stand up to voice their answers, while the teacher wrote their answers on the chalkboard (see Illustration 1). Subsequently, every student in the classroom was requested to stand up and look for another partner student to talk to.

This first part taps into discomfort towards public-speaking through exposure. This phase also included body movement, and the classroom was a self-persuasion situation in the making by questioning life-goals. So, besides exposure and body movement, the first part touched lightly upon self-persuasion.

In addition, students were asked to discuss why they think it is important to participate in sexual education lessons. Once more, students discussed with their (new) partner for a few minutes, after which the teacher asked them for their answer. Students were required to stand up to explain their answer, while the teacher wrote the voted answers at the chalkboard (see Illustration 1).

In the second section the self-persuasion situation was fully created, while the exposure technique and physical movement remained.

In the last part students were asked to think about how the former questions relate to each other. This time they did not discuss with their neighbour; they got a paper to write down their answers instead. Repeatedly, the teacher asked individual students for their answers. Again, the students stood up to tell their answers.

The connection between life goals and sexual education lessons gave students a tool to generate a personal meaning to sexual education. Students wrote their ideas, because writing is a process through which meaning is created (Zamel, 1982). In the last phase students were still exposed to public-speaking.

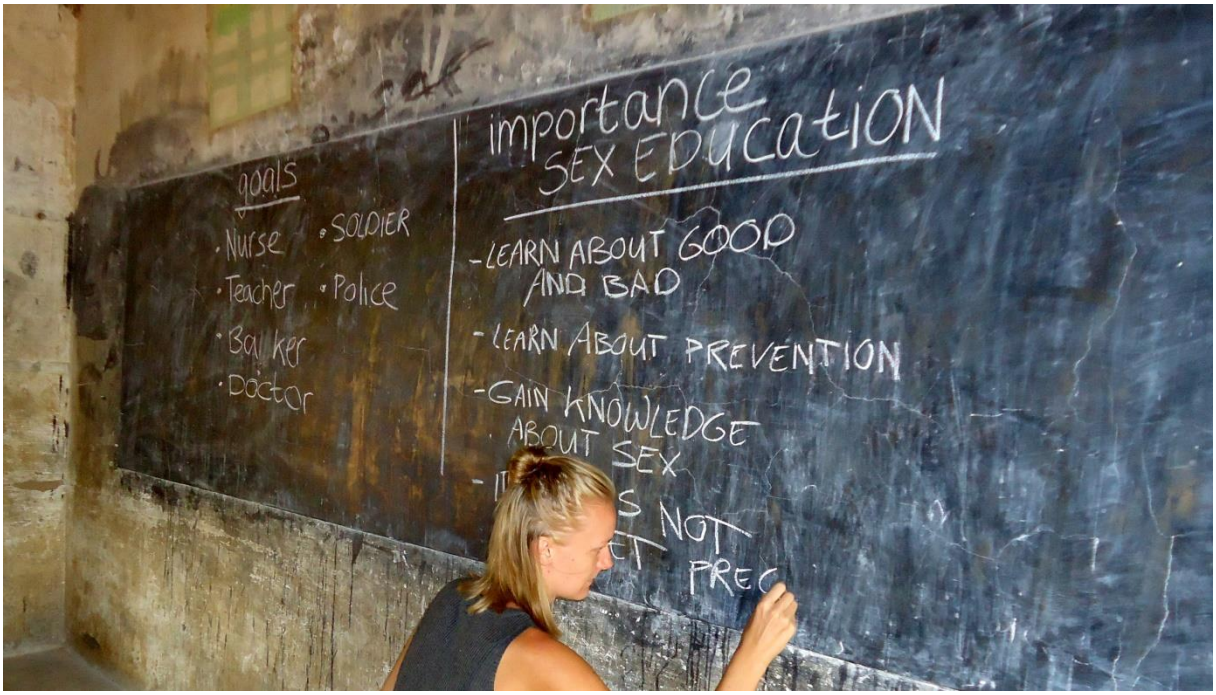


Illustration 1. Students' life-goals and their thoughts about the importance of sexual education.

5.2 Design

The study included two different conditions: a control condition and an intervention condition. The control condition consisted of a refreshment of earlier discussed topics in sex education lessons. The content of the intervention lesson is described in the former intervention section. Both conditions came with an effect measurement. To examine to what extent the intervention lesson strenghtened students level of participation the results of both conditions were compared.

The research involved five different dependent variables:

(1) the actual participation behaviour, as measured by self-report and by the score of times a student raised his/her hand;
(2) students willingness to participate;
(3) the intrinsic motivation to gain information about sexuality;
(4) resistance towards sex-related topics;
(5) feeling of discomfort towards speaking about sex-related topics in a classroom.

The actual participation level (1) illustrates actual behaviour, whereas a willingness to participate (2) account for the intention to participate actively. Intrinsic motivation (3), resistance (4), and perceived discomfort while speaking in open public (5) cover attitudes towards sexual education. All five dependent variables were examined.

The condition, either control or intervention, functioned as independent variable. The measurement used a posttest-only between-subject-design, known as A/B test.

5.3 Participants

The study was conducted at three different Junior High schools in Bolgatanga: Awogeya JHS, Abilba No. 2 JHS, and Bukere JHS. The Youth Harvest Foundation delivers sexual education lessons at these schools, and the measurement took place within such a lesson. Four different classes were involved; at Abilba No. 2 JHS two classes were engaged. The class at Awogeya JHS, and class 1b at Abilba No. 2 JHS covered the control condition. Class 1a at Abilba No. 2 JHS, and one class at Bukere JHS got the intervention lesson.

All participants were thus students at a Junior High School in Bolgatanga. In the control condition were 92 students (34 male and 52 female; 6 unknown), with an age between 10 and 20 years (*M = 14.42, SD = 1.49*). The intervention condition included 57 students (26 male and 25 female; 6 unknown), aged 10-20 (*M = 14.89, SD = 1.86*).

5.4 Measurement tools

To measure the actual participation level of each student, it was intended to score the times each student was raising his/her hand during the lesson. It was however too difficult to supervise the classroom properly; the researcher lacked of a reliable overview. Some students entered the classroom during the lesson, whereas others left their desk or changed places. Therefore the self-reported participation was used to measure students' actual behaviour. Other dependent variables were measured with a questionnaire.

5.4.1 Questionnaire

A questionnaire looked into all dependent variables by questioning them:

(1) actual participation behaviour (e.g. *"Did you always raise your hand if you felt the desire to remark during the lesson?"*);

(2) student willingness to participate (e.g. "*How much did you feel the desire to raise your hand to remark during the lesson?"*);

(3) intrinsic motivation (e.g. "*How important is it for you to gain information about sexuality?"*);

(4) resistance (e.g., *"How many topics regarding sexuality do you consider to be intesting?"*);

(5) feelings of discomfort towards speaking in open public (e.g. *"How free do you feel to speak about sexuality in front in front of your peer students?"; "How free do you feel to ask the teacher for clarification if you do not understand something?"*).

With the exception of examining actual participation (1), the questionnaire used a simplified 5 point Likert-scale (see Illustration 2). This scale made students answer to which extent they agree to a question; 0 indicated full disagreement, whereas 4 represented full agreement. To make sure that participants would understand how to deal with the answer template, an explanation drawing including example question was added (see Illustration 2).

Actual participation (1) was measured through a dichotomous question (e.g. "*Did you always raise your hand if you felt the desire to remark during the lesson?"*) , whereby students were asked to circle either *yes* or *no*. The questionnaire started with questioning age and gender. The questionnaire as a whole is attached (see Appendix 3).

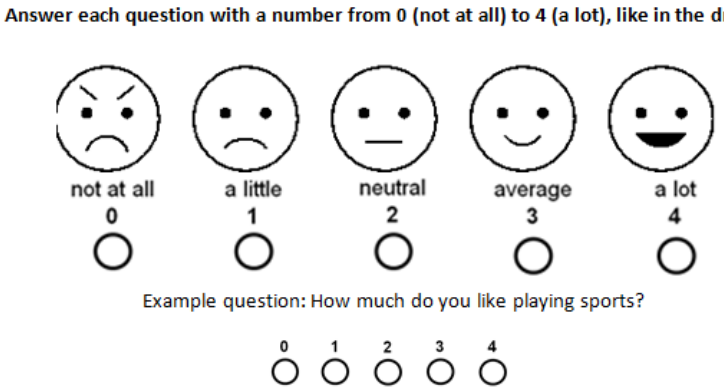


Illustration 2. Explanation of answer template at the questionnaire, including example question.

5.5 Procedure

The measurement was arranged within the first sexual education lesson after schools resumed from a 3 weeks break. The lesson was included in the schedule, but students were not aware of the coming measurement beforehand. Therefore the teacher started the lesson with telling the students that they will be asked to answer some questions at the end of today's lesson. In the control condition the teacher subsequently delivered a lesson concerning sex education for 15 minutes. In the intervention condition the researcher replaced the teacher to deliver the intervention lesson for 15 minutes. Students in both conditions filled in a questionnaire afterwards. The teacher emphasized that the

questionnaire was not an exam: students could not answer wrongly. Students were free to ask questions, might they have faced any difficulty. As soon as they finished the questionnaire, they gave the survey form back to the teacher or researcher.

5.6 Analysis plan

The analysis required some changes within the variables. In the first place, questions examining resistance (4) and feelings of discomfort (5) were phrased reversely, i.e. the higher the answered number, the lower the experienced level of resistance or discomfort. Answers were therefore recoded, so that a high average on resistance actually indicated a high level of resistance. The same counted for feelings of discomfort.

Moreover the questionnaire divided feelings of discomfort (5) into perceived discomfort towards peers, and discomfort in front of the teacher. After recoding, answers on both questions were added together, and divided by two. This resulted in one variable concerning discomfort.

The other variables (1) (2) (3) were analyzed as measured in the questionnaire.

6. RESULTS

This chapter shows the results of the measurement. To come to an evidence-based conclusion about the effect of the intervention, statistical analyses were conducted. It was expected that the intervention would increase students' participation during sexual education lessons.

6.1 The effect of the intervention

The effect of the intervention on five dependent variables was examined through either Peason's chi-quared test or an independent T-test.

On top of that, correlations between the intention to participate actively (2), and the different attitudes towards sexual education (3) (4) (5) were measured.

Importantly, the sample in the control condition was comparable to that in the intervention condition. No significant difference was found in terms of age ($t(95.994) = -1.601, p = .113$) or gender ($X^2(1) = 1.704, p = .192$).

6.1.1 Actual behaviour

It was expected that the intervention would increase active participation.

Actual participation was a dichotomous variable; participants reported to listen to the desire to raise hands either always or not always. Peason's chi-squared test was used to verify the hypothesis. The chi-squared test determines whether there is a significant difference in frequencies between conditions.

In the control condition 93,1% of the students reported to raise a hand if they felt the desire, whereas 90% of the students in the invervention condition gave in to that willingness. The difference between the condition is however not significant ($X^2(1) = .414, p = .520$), so students in the intervention condition did not give in to the desire to raise hands more nor less often, compared to the control condition.

The effect of the intervention on the following dependent variables (2) (3) (4) (5) was examined through independent T-tests. An independent T-test measures if the average score of a variable in one condition differs from the score in the other condition. Might an equal variance of one variable between the two conditions been violated, the Welch-Satterthwaite method was used to interpret t-statistics. For all 4 variables the average score was based on the 5-point Likert-scale, ranged from 0-4.

6.1.2 Willingness to participate

The hypothesis was that the intervention lesson would enlarge student willingness to participate.

The willingness to participate in the intervention condition (*M = 2.82, SD = 1.124*) was not significantly different from the willingness in the control condition (*M = 2.93, SD = 1.089*), *t*(143) =.610, *p =.543.* The intervention had thus no effect on student willingness to participate.

6.1.3 Intrinsic motivation

The expectation was that the intervention lesson would expand student intrinsic motivation.

Student intrinsic motivation was lower in the intervention condition (*M = 1.338, SD =.182*) than in the control condition (*M = 3.10, SD = 1.158*). The difference is significant (*t(141) = 3.360, p = 0.001*). Surprisingly, students were less intrinsically motivated in the intervention condition, compared to the control condition.

6.1.4 Resistance

It was assumed that the intervention would decrease resistance towards specific sex-related topics.

There was a marginal trend towards reported resistance between the conditions (*t(96.876) = -1.837, p = .069*). Students in the intervention condition (*M = 1.30, SD = 1.298*) showed more resistance than the ones in the control condition (*M = .91, SD = 1.079*). It means, with certain reservations, that the intervention lesson resulted in more resistance towards sex-related topics. This goes against the expectation.

6.1.5 Public-speaking

The hypothesis was that the intervention would lessen feelings of discomfort towards speaking about sex-related topics.

There was a marginal significant diffence between conditions (*t(140) = -1.961, p = .052).* Students felt more uncomfortable to speak about sexuality in the intervention condition (*M = 1.35, SD = .961*), than those in the control condition (*M = 1.03, SD = .939*).

This cautiously indicates that the intervention increased feelings of discomfort to speak about sexuality. This effect is contrary to the expectation.

6.2 Inter-correlations between variables

Based on the total scores, averages and standard deviations of the dependent variables (2) (3) (4) (5), inter-correlations between these variables were measured (see Table 1).

	1	2	3	4	5	6
1 Willingness to participate	-	.100	-.038	-.183*	-.142	-.116
2 Intrinsic motivation	.100	-	-.269**	-.286**	-.103	-.332**
3 Resistance	.038	-.269**	-	.239**	.260**	.126
4 Feelings of discomfort	-.183*	-.286**	.239**	-	.740**	.740**
5 Discomfort in front of peers	-.142	-.103	.260**	.740**	-	.096
6 Discomfort in front of teacher	-.116	-.332**	.126	.740**	.096	-
M	2.89	2.83	1.06	1.16	1.19	1.12
SD	1.10	1.27	1.18	.96	1.29	1.29

Note. The correlation coefficient represents the strengths of the linear association between two variables. +1 indicates the strongest possible agreement, while -1 implies the strongest possible disagreement. The mean (*M*) is based on the 5-point Likert-scale, ranged 0-4.
* = p < .05
** = p < .01

Table 1. Average, standarddeviation and the intercorrelation between different dependent variables.

The table illustrates that perceived discomfort (5) correlated negatively with both willingeness to participate (2) and intrinsic motivation (3). So, the more a student experienced discomfort towards speaking about sexuality in the classroom, the less willing the student was to participate, and the less intrinsically motivated to gain information about sexuality.

In addition, perceived discomfort (5) related postively to resistance (4). So, if a student perceived speaking about sexuality in the classroom as highly uncomfortable, the student also showed much resistance towards some specific sex-related topics.

Finally, resistance (4) correlated negatively whith intrinsic motivation (3). So, the more a student showed resistance towards some specific topics, the less intrinsic motivated the student was.

7. CONCLUSIONS & KEY POINTS

This chapter goes beyond the data and gives meaning to the study. It discusses the main findings of the study and the implications.

7.1 Major findings

This study aimed to strengthen student participation in sexual education lessons in the Upper East Region of Ghana through an intervention lesson. The lesson involved self-persuasion to overcome students' resistance towards sex-related topics. Self-persuasion simultaneously targeted student intrinsic motivation to gain information about sexuality. The intervention lesson also included exposure to public-speaking to pinpoint discomfort to speak about sex-related topics. At last, body movement stimulated participation in general.

It was expected that the lesson would empower the following: actual participation behaviour, the intention to participate and student intrinsic motivation. Meanwhile it was assumed that the lesson would decrease resistance as well as feelings of discomfort.

The intervention lesson had no effect on actual participation nor students' intention to participate. Though the lesson generated less intrinsic motivation among students, whereas it raised resistance and discomfort to speak about sex-related topics. The effect on resistance and discomfort however leaves certain reservations, since the effect was marginal significant.

In addition, the study proved the correlation between students' intrinsic motivation, resistance and discomfort. If students have a high intrinsic motivation to gain information about sexuality, they simultaneous show little resistance towards sex-related topics, and they experience less discomfort to speak about sexuality. Besides that, results showed that lots of discomfort come with little willingness to participate in sex education. What do these results implicate?

7.2 Cultural context

7.2.1 Intrinsic motivation and resistance

First of all, the intervention lowered student intrinsic motivation to gain information about sexuality, while it raised feelings of resistance marginally. Even though the intervention involved self-persuasion to encourage students' intrinsic motivation and to decrease possible resistance, the results proved an opposite effect. This raises the question: is the self-persuasion technique effective if it comes to a sensitive topic in Ghana?

Self-persuasion assumes that people are convinced that motivation comes from within. This assumption could have been violated among Ghanaian students, since Ghana is regarded as a collectivistic country (LeFebvre & Franke, 2013). In collectivistic cultures personal goals

tend to be second to collectivistic goals (Hofstede, 1980); with a collectivistic orientation people show greater commitment to a certain group (Triandis, Leung, Villareal & Clack., 1985)

The collectivistic orientation of the Ghanaian students was likewise indicated through participants' answers on the questionnaire in the pre-test. Even though participants were asked about their personal opinion, answers barely represented personal values. In contrast participants construed their opinion mostly as socially embedded (e.g. *"We learn more about body and the way to handle ourselves in society"*), and a collectivistic orientation is characterised by social embeddedness (Markus & Kitayama, 1991).

People's cultural orientation is eventually decisive for decision making. Eom, Kim, Sherman, and Ishii (2016) showed that individualistic Americans decided based on personal values, whereas collectivistic Japanese were driven by perceived norms. This could explain the reversed effect of the current intervention lesson.

The intervention lesson made sexual education personally relevant. Collectivistic students contrariwise prefer commitment to perceived norms over personal appliance. An activation of personal relevance could therefore have triggered students' confirmation to subjective norms. Subjective norms do not always approve sexual education lessons, whereby students' confirmation to those reverse norms explain the decrease in students' intrinsic motivation.

Moreover, on the account of the cognitive dissonance theory (Festinger, 1962) it was assumed that students would show less resistance towards sexual education topics. The theory implies that actual attendance to sex education lessons would motivate students to convince themselves about the importance, even when the lesson is not in line with personal attitudes.

A collectivistic orientation presupposes that confirmation to subjective norms get priority, rather than justification of an individual situation. Ghanaian students could thus have down played the sexual education lesson they were attending instead of convincing themselves about beliefs that run counter to subjective norms. This explains the increase of students' resistance towards sexual education in the intervention condition.

7.2.2 Discomfort

Building on Ghana's collectivistic orientation, the raised discomfort can also be explained. The intervention increased discomfort towards speaking about sex-related topics in a classroom, although this effect was only marginally significant.

If students value collectivistic norms over personal beliefs, and the content of sex education is not fully in line with collectivistic norms, it might feel uncomfortable to think and talk about sex education from a personal point of view. This stands in the way of speaking freely about the topic, and could explain the increased level of discomfort in the intervention lesson.

7.3 Implications

7.3.1 Cultural awareness

The results suggest that perhaps psychological theories, 95% of which have been generated in the Western world (Arnett, 2008), do not adequately represent universal human functioning. The study therefore proves the need for an integrationist cross-cultural approach, whereby psychological theories and concepts are transformed so that they fit the characteristics of the region (Kim et al., 2000). Contrary to universalist approach, the integrationist perspective does not assume that particular theories are universal a priori; theories need to be modified instead.

From an integrationist perspective, the self-persuasion technique itself can be effective if it comes to a sensitive topic in Ghana. The use of an individualistic focus within a collectivistic cultural context might rather have reversed the effect of self-persuasion.

It is therefore interesting to examine students' intrinsic motivation, resistance and discomfort to speak about sex-related topics, when students persuade themselves about the importance of sexual education through a collectivistic relevance. A possible question could be: *"How can sexual education contribute to the empowerment of Ghanaian youth?"* Self-persuasion then arguably causes different effects.

Firstly, because the intervention set intrinsic motivation, resistance, and discomfort in motion, notwithstanding the reversed effect. The intervention additionally proved that the former attitudes significantly relate to each other.

For that reasons, it is plausible that a continuing intervention modified to Ghana's cultural orientation, will cause preferable results on intrinsic motivation, resistance, and discomfort towards speaking about sexuality in a classroom. Further research needs to be done.

7.3.2 Actual participation and willingness to participate

The negative relation between students' intrinsic motivation and discomfort to speak about sexuality supports the point that a feeling of autonomy is necessary to maintain intrinsic motivation, as stated by the self-determination theory (Niemiec & Ryan, 2009). Students' autonomy was identified as speaking freely during sexual education. In contrast, unfulfilled autonomy refers to discomfort to speak about sexuality.

The results show that if students experience discomfort to speak, their intrinsic motivation is low, and vice versa: low intrinsic motivation comes with high discomfort to speak. A feeling of autonomy thus goes hand in hand with intrinsic motivation.

However, the intervention lesson did not cause differences in actual participation behaviour nor students' willingness to participate. The study neither showed any relation between students' willingness to participate and intrinsic motivation or resistance.

Previous research certainly showed that Ghanaian students are eager to participate in sexual education, as they gain understanding, knowledge and skills (Youth Harvest Foundation, 2017). This eagerness was classified as an intrinsic motivation. Since the study did not prove a relation between students' intrinsic motivation and students' willingness to participate in sex education, it is interesting to question the base of students' interest in sex education again. If students are not driven by their own intrinsic motivation, what drives them in gaining information about sexuality? Further research can indicate other explanatory variables for students' actual participation level and their willingness to participate.

7.4 Methodological issues

Some methodological issues could have had an influence on the results. To begin with the control condition included more participants than the intervention condition. As a consequence the conditions did not show equal variances for all variables. For that reason results are more prone to statistical errors.

Moreover, the initial differences between the students in both conditions were not examined. Existing dissimilarities could therefore have influenced the results, without any

acknowledgement. For example, students in the control condition could initially have been more open-minded towards sexuality. Characteristics then influenced the results.

Furthermore, a self-report method was used to measure the effect of the intervention. Even when participants try their best to be insightful, their self-reports are subject to various sources of inaccuracy (Paulhus & Vazire, 2007). The results thus possibly lack in reliability. Yet, the self-report method was used in both conditions, so this limitation cannot explain any difference (or lack thereof) between conditions.

At last, the current study used a *cocktail intervention* whereby not only self-persuasion was involved, also exposure to public-speaking as well as body movement were included. *The cocktail intervention* as a whole set motion within students' attitudes. The combination of strategies makes it hard to point which technique caused the effects. Continuing research could examine the effectiveness of each technique within the Ghanaian context separately.

8. RECOMMENDATIONS

Finally, based on the conclusions, recommendations are presented for future research projects.

8.1 Initial sexual education programme

First of all, the Youth Harvest Foundation already delivers a sexual education programme that appeals to students. Might the Foundation aim further improvements of the programme, it is useful to acknowledge students' intrinsic motivation as a facilitator for student participation. A recognition of both barriers, resistance towards sex-related topics and discomfort to speak about sexuality in open public, is additionally recommended. An awareness of these influential attitudes would, ultimately, be beneficial for the outcomes of sexual education programmes.

8.2 Further research

On the theoretical level this study represents an urgency for an integrationist perspective to cross-cultural studies, whereby existing psychological theories are modified to meet the characteristics of the cultural context. Might an integrationist approach be used, the study simultaneously gives the following suggestions for further research:

- Examining the effectiveness of self-persuasion on students' motivation, resistance and discomfort through increasing relevance of students' participation in sexual education lessons from the community perspective.
- Exploring other explanatory variables, including the influence of extrinsic motivation, to declare students' participation behaviour in sexual education lessons.

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9. Attachments

Appendix 1. Questionnaire pre-test

Thank you for helping me with my research as part of a Master's Degree in Psychology. The study looks into experience of talking about sexuality. I really appreciate your time and input. It takes about 15 minutes. Please answer honestly. Anonymity is assumed. Except for you, nobody will read your answers. If you do not understand anything, do not hesitate to ask me.

1. What is your gender?
   A. Boy
   B. Girl

2. How old are you?
   ……..

3. Do you get sexual education lessons at school?
   A. Yes
   B. No
4. Which themes regarding sexuality do you discuss in school?
   ……
   ……
   ……

5. Do you think it is important for you to gain information about sexuality? Why?/ Why not?
   A. Yes, because……
   ……
   B. No, because……
   ……

6. Would you ask the teacher for clarification if you do not understand what he is saying during sexual education lessons? Why?/ Why not?
   A. Yes, because……..
   ……
   B. No, because……
   ……

7. Which themes regarding sexuality do you think are the most interesting?
   ……
   ……
   ……
8. Which themes regarding sexuality do you think are not worth it to discuss?
   ……
   ……
   ……
9. What do you think about the importance of talking about sex and condom use?
   ……
   ……
   ……

See other side, please turn over.

10. Do you discuss sexuality with your parents?
    A. Yes, because……
    ……
    B. No, because……
    ……

11. Do you discuss sexuality with your peer students?

A. Yes, because……..
……
No, because……..
……

12. What do your peer students think about talking about sex?
……
……
……

Please put the paper in the envelope.

Thank you for your time and effort.

Appendix 2. Coding scheme pre-test

Participant	Why is it important for you to gain information about sexuality?	Why is it NOT important for you to gain information about sexuality?	Codering (1 = motivation, 2 = positive subjective norms, 3 = negative subjective norms, 4 = unclear influence subjective norm, 5 = resistant opinion, 0 = none)	Why do you ask the teacher for clarification if you do not understand what he is saying during sexual education lessons?	Why do you NOT ask the teacher for clarification if you do not understand what he is saying during sexual education lessons?	Codering (1 = motivation, 2 = positive subjective norms, 3 = negative subjective norms, 4 = unclear influence subjective norm, 5 = resistant opinion, 0 = none)	Which themes regarding sexuality do you think are the most interesting?	Codering (1 = motivation, 2 = positive subjective norms, 3 = negative subjective norms, 4 = unclear influence subjective norm, 5 = resistant opinion, 0 = none)	Which themes regarding sexuality do you think are not worth it to discuss?	Codering (1 = motivation, 2 = positive subjective norms, 3 = negative subjective norms, 4 = unclear influence subjective norm, 5 = selective avoidance, 0 = none)
1	we learn more about body and the way to handle our selfs in the society		4	To know more information about the topic and also use it to learn others		1	Reproductive system	1		1
2	It teaches me more and importantance of seks and it effect		1	I have to understand what it is and know the effect		1	Male and a female mate (sex)	1	The disadvantage or effect	5
3	It helps us to do away with early seks		3	I will like to know the importance of staying chaste until marriage		1	Indiscriminate seks	0	Indiscriminate seks	0
4	It shows something that is important in our health and it let us know what is good or bad		1	you have to undersatand before you can also talk to your friends about sexual education		1	Reproductive system	1	everything is important to discuss	1
5	To know more about seks		1		You be feel shy to ask the teacher	3	Reproductive system	1	everything is important to discuss	1
6	knowing or having information helps you to desist from sexual related activities		1	It helps us to know more or have knowledge about the discussion		1	Indiscriminate seks discussion because that one helps the common effects on both the elder and the younger and therefore that one will help them learn a lesson.	1	The use of condom; because if people know that using condom will protect a person from disease, they try to become addicted and may one day lead to disease.	5
7	to make you know the effects		1	you want to understand and prevent yourself		1	the reproductive system	1	how to have seks	5

Participant	What do you think about the importance of talking about sex and condom use?	Codering (1 = motivation, 2 = positive subjective norms, 3 = negative subjective norms, 4 = unclear influence subjective norm, 5 = resistant opinion, 0 = none)	Why do you discuss sexuality with your parents?	Why do you NOT discuss sexuality with your parents?	Codering (1 = motivation, 2 = positive subjective norms, 3 = negative subjective norms, 4 = unclear influence subjective norm, 5 = resistant opinion, 0 = none)	Why do you discuss sexuality with your peer students?	Why do you NOT discuss sexuality with your peers students?	Codering (1 = motivation, 2 = positive subjective norms, 3 = negative subjective norms, 4 = unclear influence subjective norm, 5 = resistant opinion, 0 = none)	What do your peer students think about sex?	Codering (1 = motivation, 2 = positive subjective norms, 3 = negative subjective norms, 4 = unclear influence subjective norm, 5 = resistant opinion, 0 = none)
1	To protect pregnancy; to protect HIV/aids	0	They help you to know how to keep yourself. They will advise you to stay away from body.		2		Some make fun about you	3	Some feel shy.	3
2	Condom prevent diseases like HIV aids e.t.c. and talking about sex help to educate us	1	My parents teach how seks is about and the right time to do it.		2	We learn from eachother about seks and advice eachother		2	They think about the good and bad about seks	0
3	Seks is a commonly thing; condom is use to protect persons from getting pregnant	0	You want to know the effects of early seks		2	You want to know the effects of keep yourself from disease		2	They see it to be something common in Africa	0
4	talking about sex and condom prevent disease from our health and also help us to know something good or bad in life	1	discussing sexuality with our parents is important when you want to know something about seks they will tell you		2	discussing sexuality with peer students is important when you don't know something your friends will tell you about it.		2	because it prevent our health from getting HIV/aids and also help us to know something good in our life.	0
5	to prevent HIV/aids; to prevent pregnance	0	they will help you and they will advise you to take care of yourself		2		They will make fun of you about some topics you discuss	3	They know more about the body.	4
6	I think it is important because talking about seks helps the individual to know about seks relation and the use of condom helps the individual to prevent disease.	1	discussing sexuality with them will help you to get advise from the effect of seks		2	some peer students are responsible students so they try to also give you the advice they have		2	They think talking about it will help them to have knowledge on the effects of seks and also gets advice.	1
7	the condom is to prevent you against disease and unwanted pregnancy seks is important because without seks you will not give birth	0	They will teach you some of the importance of seks and to prevent yourself		2	You can advice each other about the importance and to prevent yourself		2	Some people think it is bad and some people say it is good as for me I say it is important because without sexuality education you may end up by having seks without protection.	1

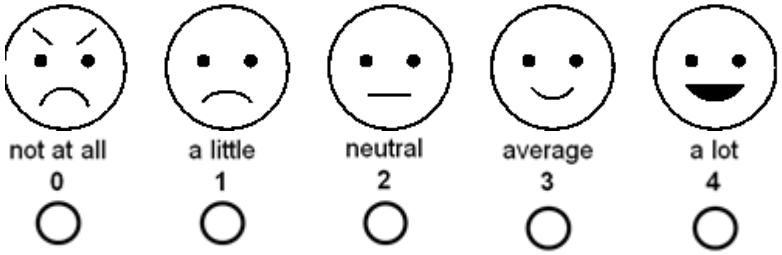
Appendix 3. Questionnaire Intervention

Thank you for filling in the questionnaire! I really appreciate your time and input. Please answer honestly. Anonymity is assumed. Nobody will read your answers. Make sure that you fill in the questionnaire alone. There is no need to discuss with your neighbour. If you do not understand anything, please ask me.

What is your gender? Male / Female

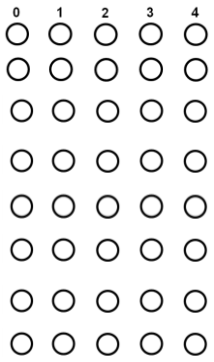
How old are you? _____ years

Answer each question with a number from 0 (not at all) to 4 (a lot), like in the drawing:



Example question: How much do you like playing sports?

There are no right or wrong answers, I am simply curious about your opinion.



1. How did you like the lesson?
2. How much did you feel the desire to raise your hand to remark during the lesson?
3. How important is it for you to gain information about sexuality?
4. How many topics regarding sexuality do you consider to be interesting?
5. According to you, how much did your peer students like the lesson?
6. How free do you feel to speak about sexuality in front of your peer students?
7. How free do you feel to ask the teacher for clarification if you do not understand something?
8. How embarrassed do you feel to get information about sexuality?

Circle the right answer.

Did you always raise your hand if you felt the desire to remark during the lesson? A. Yes B. No

This is the end of the questionnaire. Thank you!