

Chantal Brügger

Matrikelnummer: 13-062-989

Masterstudium Sport, Bewegung und Gesundheit,

Prävention und Gesundheitsförderung

„The development of a «Moving-to-music» toolkit for disadvantaged primary schools in Port Elizabeth, South Africa and its physical and psychological benefits“

Masterarbeit

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Erstgutachterin: Stefanie Gall

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Acronyms

BMI	Body Mass Index
CAPS	Curriculum Assessment and Policy Statement
DASH	Disease and Activity in Schoolchildren's Health
DMT	Dance Movement Therapy
NMU	Nelson Mandela University

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Abstract

Background

The *KaziBantu* project (Healthy Schools for Healthy Communities) builds on existing evidence that school-based health interventions can improve the health of school children and teachers in low-resource settings. The «Moving-to-music» toolkit aims at offering simple and effective lessons that are easy for teachers to apply.

Methods

The South African school curriculum (CAPS) forms the foundation of the toolkit lessons, whereby the «Moving-to-music» toolkit is incorporated into the subject of creative arts, in which learners are exposed to dance, drama, music and visual arts. Combining the CAPS with Rudolf von Laban's educational/creative dance approach, the «Moving-to-music» lessons were developed for disadvantaged primary schools (grades 1 to 7).

Results

In collaboration with Lize van der Walt, a total of 112 «Moving-to-music» lessons were provided to six to twelve-year-old school children. The toolkit is split into creative-dance-lessons and action-song-lessons. The focus of the creative-dance-lessons is on educational dance values, inspired by the theoretical writings of Rudolf von Laban. Their contents include exploratory activities, self-determined movements and creative group activities.

Conclusions

There is evidence to support that dance has a positive impact on individuals' overall health and well-being. On the basis of the results of this research, it can be concluded that the «Moving-to-music» toolkit offers various benefits for primary school children in some of the poorest areas of Port Elizabeth. The implementation of a «Moving-to-music» toolkit may contribute to a healthier and happier life for school children in South Africa.

Zusammenfassung

Hintergrund

Das *KaziBantu*-Projekt (Healthy Schools for Healthy Communities) baut auf bestehenden Erkenntnissen auf, dass schulische Gesundheitsmaßnahmen die Gesundheit von Schülern und Lehrern in ressourcenarmen Umgebungen verbessern können. Das Ziel des «Moving-to-music»-Lehrmittels ist es, unkomplizierte und effektive Lektionen anzubieten, die für die Lehrpersonen unproblematisch anwendbar sind.

Methoden

Der südafrikanische Lehrplan (CAPS) bildet die Grundlage für das Lehrmittel, wobei das «Moving-to-music»-Lehrmittel in das Fach 'Creative Arts' integriert wird. In diesem Fach werden Lernende mit Tanz, Theater, Musik und bildender Kunst vertraut gemacht. In Kombination mit den CAPS und Rudolf von Labans Ansatz des pädagogischen/kreativen Tanzes wurden «Moving-to-music»-Lektionen für benachteiligte Grundschulen (1.–7. Klasse) entwickelt.

Ergebnisse

In Zusammenarbeit mit Lize van der Walt wurden insgesamt 112 «Moving-to-music»-Lektionen für sechs- bis zwölfjährige Schüler/-innen produziert. Das Lehrmittel gliedert sich in 'Creative-Dance-Lessons' und 'Action-Song-Lessons'. Der Schwerpunkt der 'Creative-Dance-Lessons' orientiert sich an den theoretischen Werken von Rudolf von Laban. Die Inhalte umfassen explorative Aktivitäten, selbstbestimmte Bewegungen und kreative Gruppenarbeiten.

Schlussfolgerungen

Es ist wissenschaftlich bewiesen, dass Tanz einen positiven Einfluss auf die Gesundheit und das Wohlbefinden des Individuums hat. Aus den Ergebnissen der Untersuchung lässt sich schließen, dass das «Moving-to-music»-Lehrmittel für benachteiligte Grundschul Kinder aus den ärmsten Gegenden von Port Elizabeth diverse Vorteile bietet. Die Implementierung eines «Moving-to-music»-Lehrmittels kann zu einem gesünderen und glücklicheren Leben von Schulkindern in Südafrika beitragen.

1. Introduction

Physical activity is a strong marker of health and well-being. The *KaziBantu* project aims at improving the health of school children and teachers from lower socioeconomic communities. One goal of the *KaziBantu* toolkit is to support and empower teachers in Port Elizabeth, South Africa, to execute physical education lessons with ready-made lessons for healthy schools in healthy communities. A lack of physical activity implicates several negative consequences. In addition to psychological, cognitive, motoric and social factors, a lack of activity may lead to physiological problems such as obesity, several cardiovascular diseases, diabetes and osteoporosis (Steyn & Damasceno, 2006). The intervention facilitates improving the physical fitness, quality of life and well-being of disadvantaged primary school children from Port Elizabeth. Even though the South African curriculum contains compulsory physical education and creative arts lessons, they are rarely executed. This is due to several barriers such as lack of qualification or training, limited equipment, inadequate facilities and large class sizes. Teachers in the townships in Port Elizabeth tend not to execute the compulsory sports lessons. The *KaziBantu* project aims at supporting teachers with ready-made «Physical-education», «Moving-to-music» and «Nutrition-and-health» lessons.

The focus of this paper is on the «Moving-to-music» toolkit and the physical and psychological benefits of dancing. Dancing has an immense impact on the life of a child or adolescent. Dance as a regular subject in school fosters coordination, stamina and cognition, as well as creativity and expression (Ritter & Low, 1996). Due to teachers' limited expertise and lack of teaching materials, dancing is not an inherent part of schools' routines. With the toolkit and ready-made «Moving-to-music» lessons, teachers are expected to feel more confident to dance and move with their learners. In addition to several physical and psychological benefits of dance, this thesis discusses the impact of dance education and the opportunities of implementing and integrating it in a primary school setting. A first draft of the «Moving-to-music» toolkit is presented in this paper.

2. Theoretical background and definitions

2.1. Theoretical background

Several studies show that children from South Africa are becoming increasingly unfit, sedentary and overweight (Hurter & Pienaar, 2007). Walter (2011) affirms that the physical activity level is insufficient in South Africa. During Apartheid, black and coloured people were forced to live separately in townships outside the city centre and the gap between poor and rich or black and white increased. Among others, poor health, poverty and inadequate nutrition are some of the main post-apartheid effects (Hurter et al., 2007). A country such as South Africa is confronted with a double burden of disease. On the one hand, people suffer from communicable diseases such as tuberculosis, helminth infections and human immunodeficiency virus (HIV) epidemics and on the other, lifestyle-related health behaviours arise, paired with low physical activity levels. South Africa is still contending with socioeconomic inequalities, which are characterised by a high rate of unemployment, high criminal statistics, a poor healthcare system and a lack of educational institutions (Du Toit, Pienaar, & Truter, 2011).

Several barriers restrict teachers, children and the school system in Port Elizabeth, South Africa. Primary schools in disadvantaged areas usually have large class sizes (40 to 60 children in one class), whereby the equipment is limited and never sufficient for every learner in a class, which makes it difficult for teachers to conduct physical education lessons. In addition, teachers do not feel confident to teach physical education because of their lack of knowledge and inadequate training. The absence of proper education leads to basic problems such as lack of knowledge about how to structure a physical education lesson. Furthermore, physical education is not perceived to be as important as subjects such as language or mathematics, which leads it to be regularly disregarded, even though physical education is a mandatory subject in the South African curriculum. Given that for many teachers sports lessons are not a priority, they are the first ones to be omitted when there is time pressure. For this reason, this paper aims at accentuating the necessity of physical activity in primary schools, in addition to the already existing African dance culture. For better health and well-being, physical education and creative arts should have a fixed spot in the weekly lesson schedule in every primary school.

2.1.1. DASH – Disease, Activity and Schoolchildren’s Health

In 2014, the three-year longitudinal cohort study DASH was initiated. The Nelson Mandela University (NMU), the University of Basel and the Swiss Tropical and Public Health Institute partnered to explore the implementation of a multi-fold, school-based intervention toolkit that aimed at contributing to the improvement of the health and well-being of school children in disadvantaged communities in Port Elizabeth. The intervention involved weekly physical activity and dance lessons, health and hygiene lessons, and nutritional supplementation and deworming. Two physical education and one dance lesson per week were led by NMU students. One of the goals of the DASH study was to find a way to empower teachers and children with the knowledge and abilities they need to develop a healthier lifestyle. The DASH study documented the health and well-being of 1000 school children at eight schools in Port Elizabeth and resulted in the insight that physical and nutritional intervention have a positive effect on the daily lives of primary school children and teachers (Yap et al., 2015). The DASH study was successfully completed in 2017 and is currently being continued through the *KaziBantu* project.

2.1.2. *KaziBantu* – Healthy Schools for Healthy Communities

The *KaziBantu* project builds on existing evidence that school-based health interventions can improve the health of school children and teachers in low-resource settings. Its goal is to improve the overall and cardiovascular health of students and teachers by promoting health literacy, ensuring a formalised physical exercise program, providing access to medical examinations, monitoring cardiovascular risk, dispensing anthelmintic treatment, and where necessary, offering nutritional supplementation. The course material and learning programmes were developed in collaboration with the University of Basel, the Nelson Mandela University and the Swiss Tropical and Public Health Institute.

The South African curriculum divides the subject of life skills into creative arts, health and hygiene, nutrition and physical education lessons. The development of these skills is crucial in preparing students for life and its possibilities (Department of Basic Education Republic of

South Africa, 2011a; 2011b; 2011c). The creative arts lessons include dance, drama, music and visual arts. The focus in the «Moving-to-music» toolkit is on dance and music.

2.2. Definitions

The following definitions serve as the basis for this paper and to develop a broader understanding of the topic it addresses. In this thesis, I rely on these definitions, even though I am aware that additional definitions and descriptions of the respective terms exist.

2.2.1. Dance

Pepper (1984, p. 883) defines dance as “patterned, rhythmic movement in space and time”. Furthermore, Bläsing et al. (2012) describe dance as the movement of one or more bodies in a choreographed or improvised manner with or without accompanying sound. Dance can be either stage dance or educational dance. This thesis concentrates on educational dance, which involves dance with lay participants and focuses on their individual achievements, whereby the technique of dance can be neglected.

2.2.2. Dance education

With self-knowledge as its aim, dance education seeks to develop self-expression and interpretation through motion (Koff, 2000). Educational dance aims at promoting growth and development through movement, thereby focussing on the development of children’s full capabilities. The term ‘dance education’ includes teaching strategies aimed at fostering the general holistic development of individuals (Koff, 2000).

2.2.3. Creative dance

Creative dance is a dance form that combines the mastery of movement with the artistry of expression (Gilbert, 1992). Joyce (1994) defines creative dance as movements in which originality, spontaneity and individuality are triggered. Through given movement possibilities, dancers are constantly challenged to find their personal solution to movement tasks, which are adapted to their personal references (Joyce, 1994).

2.2.4. Dance movement therapy (DMT)

Bernstein (1979, p. 3) defines dance movement therapy (DMT) as “the psychotherapeutic use of movement as a process which furthers the physical and psychic integration of an individual”. Erwin-Grabner, Goodill, Hill and Von Neida (1999, p. 21) add that “the dance movement therapy perspective is holistic, and can simultaneously address and integrate the physical, cognitive and emotional aspects of an individual’s experience and behaviour”. The goal of DMT is to achieve a holistic integration of emotional, spiritual and cognitive selves with the environment (Payne West, 1984).

3. Research question and hypotheses

This thesis focuses on the benefits of the «Moving-to-music» toolkit and its importance for disadvantaged primary schools in Port Elizabeth. There is evidence in support of the various benefits of dance. This thesis aims at providing a theoretical background, proof and support

for the implementation and importance of dance as part of the toolkit and the South African curriculum.

3.1. Research question 1

Which psychological and physiological benefits does dance/«Moving-to-music» have for disadvantaged primary school children in Port Elizabeth, South Africa?

3.2. Research question 2

Which benefits does the integration and implementation of the dance education approach have in a disadvantaged primary school setting?

4. Status of research

As the content of «Moving-to-music» lessons may be structured with versatile tasks and exercises, the toolkit offers a wide variety of specific ways to use and implement them in a school setting. On account of the dissimilitude of the matter of «Moving-to-music», I tried to find the most miscellaneous set of results concerning the benefits and effects of dance. The literature findings range from aerobic dance to educational dance and DMT. This literature research reflects the multifaceted effects of dance on children and the possible effects of implementing «Moving-to-music» in primary schools.

Since ancient times, dance has been associated with health benefits that have several positive effects on the human body (Bernstein, 1986). Dance fosters a wide variety of domains in the healthy development of a child. Several studies highlight numerous physical, psychological and social benefits of dance (Ritter et al., 1996; Jain & Brown, 2001). According to Klinge (2010), skills for a lifetime are acquired through dance. Dancing is an effective way to promote the health and well-being of learners and obtain the recommended amounts of physical activity (Jain et al., 2001). Quiroga Murcia, Kreutz, Cliff and Bongard (2010) view dance as an integrated activity that includes musical stimulation, body movement and social context.

In South Africa, dancing has always been and continues to be a very popular activity whenever people gather, be it in rural or urban areas (Edwards, 2010). Music and dance are used to motivate people to participate in sports, community life and common causes (Edwards, 2010). The examination of dance offers a solid basis for further training in specific sports. For instance, 'rhythm training' in dance lessons has a positive impact on the subsequent acquirement of techniques in athletics or ball sports (Quiroga Murcia, 2010).

Since a fairly long time, South African men dance to inculcate awareness and raise strength, as well as to motivate each other and promote endurance under difficult circumstances (Edwards, 2010). Dancing is an established way to integrate physical activity into the lifestyle of people who are not motivated to execute traditional forms of exercise such as running, swimming or playing soccer (Ward, 2008). It appeals to large groups of people and to those who have a negative perception of exercising, for instance from fear of getting hurt by aggressive players (Ward, 2008). Ward (2008) also states that some learners who exhibit bad and unmotivated behaviours during traditional physical education classes actually enjoy dance classes. Furthermore, he states, that "the use of dance to promote a healthy lifestyle

among young people, including those with chronic conditions, has evidence to support its widespread use in intervention programs” (Ward, 2008, p. 34). In a meta-analysis of Koch, Kunz, Lykou and Cruz (2014) evidence is provided in support of the effectiveness of DMT for populations with disorders such as anxiety, autism, breast cancer, cystic fibrosis, eating disorders, rheumatoid arthritis, schizophrenia and stress. Additionally, Koch et al. (2014), and Burgess, Grogan and Burwitz (2006) found evidence suggesting that dance benefits quality of life, well-being, mood, cheerfulness and clinical outcomes, and significantly improves people’s attitudes to their bodies and their self-perception. Dancing in leisure time or therapy is an efficient way to address and support a wide range of physical and mental problems (Quiroga Murcia & Kreutz, 2012). Zimmer (2012) states that the experiences acquired from the body and its movement form the foundation of children’s identity development. Ward (2008) concludes that dance improves the physical, emotional and psychological well-being, while Alpert (2011, p. 157) expounds that “it is evident that dance is not only a sustainable form of exercise but it also has a body-mind effect on anyone who dares to engage in this form of physical activity. Dancing is not usually perceived as an exercise by most individuals and most cannot resist moving to a catchy tune, so it is my hope that you will dance your way to staying healthy”.

The following chapters present the physical and psychological benefits of dance based on relevant studies and meta-analyses. The last chapter on dance education includes the background of creative dance, the approach of educational dance and the benefits of creative movement activities.

4.1. Physical benefits

4.1.1. Cardiovascular benefit and chronic diseases

Dance promotes fitness, which improves aerobic capacity (Kirkendall & Calabrese, 1983). Dancing improves muscle tone, flexibility, coordination and balance, and reduces tension, chronic fatigue and other stress-related conditions (Hanna, 1995; Bremer, 2007). Hanna (1995) states that dancing promotes wellness by strengthening the immune system by means of the abovementioned improvements and reductions. Several physical benefits of dance are highlighted in the article of Alpert (2011), who emphasises that dance interventions cause an increase in flexibility, muscle strength and tone, endurance, balance and spatial awareness, and the general feeling of well-being. As mentioned above, dancing improves flexibility, which enables a fully functional range of motion. Additionally, physical function and daily activities are improved by a more flexible musculoskeletal system (Ward, 2008). Specific dance movements support the development of a child's body. Alpert (2011) states that side-to-side movements help to strengthen the weight-bearing bones and that repetitive dance movements increase muscle tone and improve posture, which leads to a decrease or prevention of lower-back problems.

Dancing plays a beneficial role in the prevention and management of chronic diseases and provides the same cardiovascular benefits as other aerobic activities (Ward, 2008). A systematic review by Burkhardt and Brennan (2012) distinguishes 14 controlled studies of dance interventions and their effects on the health and well-being of children and young adults. Their main findings regarding the physical benefits indicate an improvement of cardiovascular fitness and a reduction of obesity. Adiputra, Alex, Sutjana, Tirtayasa and

Manueba (1996), and Flores (1995) provide similar results, emphasising that the dance interventions in their studies resulted in a significant improvement of cardiovascular fitness. Mavridis, Filippou, Rokka, Bousiou and Mavridis (2004) conducted a dance intervention with six to seven-year-old children and found significant improvements in cardiorespiratory fitness, strength and endurance. With an increase in fitness, improved results in children's body composition and body-fat levels occurred. Flores (1995) shows that girls who attend dance and health education sessions have a significantly decreased body mass index (BMI), while Ward (2008) affirms that dancing leads to a reduction of body fat and that dance and its fitness component improve the strength and efficiency of the cardiorespiratory system. Diabetes patients reduce their risk of cardiovascular diseases through dance, due to an improvement of the cardiovascular system (Ward, 2008). Depending on the intensity of dance, cardiovascular conditioning may be gained or enhanced (Alpert, 2011). Lastly, dancing can be said to reduce the risk of heart disease and help with the prevention and management of chronic diseases.

4.1.2. Impact on the bone mineral density

Khan et al. (2000) underline that physical activity such as dancing improves children's bone mineral density, which is important in reducing the risk of osteoporosis later in life. The cross-sectional study of Bennell et al. (2000) compared the bone mineral content of novice dancers to that of non-dancer controls, showing that eight to eleven-year-old girls who participated in dance were associated with a 4.5% greater bone mineral density at the femoral neck than non-dancers. Matthews et al. (2006) found similar results, observing a 4% higher bone density in dancing children. Khan et al. (2000), Bennell et al. (2000) and Matthews et al. (2006) disclose the positive effects of dance lessons on children's skeletons and bone mineral density.

4.1.3. Balance and stability

Dancing improves body balance and the ability to control the body, due to an increased stabilisation of muscles and better posture. Bläsing et al. (2012) examined several studies, revealing better balance skills in dancers compared to non-dancers. Dance lessons strengthen the core, whereby especially exercises and movements on the floor ('floor work') improve core stability (Ward, 2008). A better core stability leads to an increase in balance and coordination, and a reduction of back pain and poor posture. The quality of movement can thus be improved through dance (Ward, 2008).

4.1.4. Brain function and coordination

Dance increases temporal and prefrontal brain activity, which is responsible for memory and the ability to multitask and maintain attention (Alpert, 2011). Dance helps the brain to form new interconnections and to work faster. Through rhythmic bodily movement, the brain is activated and stimulated by the required integration of rhythm, spatial pattern, synchronisation to external stimuli and whole-body coordination (Brown, Martinez, & Parsons, 2006). In the article of Berrol (1992), an improvement of several cognitive processes, such as attention, perception, memory and concentration, was shown to occur as a result of dancing. By learning a combination of movements, memory skills increase. Studer-Lüthi and Züger (2012) add that complementing tasks in a dance lesson, for instance searching and finding one's own movements, leads to continuous presence and decision-

making, both of which are required during dance lessons. It may be assumed that the processes of searching and finding movements can lead to an improvement of brain capacity and complex thinking (Studer-Lüthi et al., 2012). Fukui and Toyoshima (2008) add that the aforementioned ways of moving lead to increased levels of brain-derived neurotrophic factors, stimulates cortical plasticity, increase capillarization and decrease oxidative damage in the brain.

4.2. Psychological effects

Dancing is more than just physical activity: it is an aesthetic way to move. The combination and interaction of movements and music lead to creativity and self-awareness (Edwards, 2010). Edwards (2010, p.134) states that “in recent times, music and dance are used to motivate people for sports, communal living, and common cause”. The combination of dance and music activates complex cognitive and emotional process, which stimulates both brain hemispheres (Studer-Lüthi et al., 2012).

4.2.1. Quality of life and well-being

The meta-analysis of Ritter et al. (1996) reports that dance interventions cause changes in psychological variables. Barely twenty years later, Koch et al. (2014) accomplished a second evidence-based meta-analysis of DMT and its health-related psychological outcomes. They found that DMT has significant effects on factors such as quality of life, well-being, mood, affect and body image (Koch et al., 2014).

A study by Gurley, Neuringer and Masee (1984) compared dance with other physical activities and their effects on the psychological well-being. They found that the overall change-in-well-being scores were significantly higher in dance classes than in regular sports lessons and that dance classes resulted in a more positive overall change than other sports. Learners evaluated themselves as significantly more secure, creative, relaxed, motivated, coordinated, healthy and competent (Gurley et al., 1984). The multi-sidedness of an aesthetic sport such as dance triggers people on an emotional and cognitive level, in addition to the physical level. Gurley et al. (1984) justify the difference between the psychological effects of dance and those of other sports due to the former’s combination of art and physical strain. In the meta-analysis of Koch et al. (2014), the psychological outcomes of DMT are summarised as an increase in quality of life, well-being, cheerfulness and body image, and a decrease in depression and anxiety.

4.2.2. Music stimulation and expression of emotions

Quiroga Murcia et al. (2010) state that the combination of body movements, musical stimulation and social context leads to valuable therapeutic effects. These components activate individual psychophysiological resources, strengthen the sense of control and induce a positive mood (Quiroga Murcia et al., 2010). Dance offers opportunities for nonverbal expression, interpersonal contact and pleasurable activity (Chace, 1953).

Fonteyn (1979) states that dance is one of the most suitable and necessary arts for physical development. It emerges as the primary and most natural preparation for numerous forms of physical exercise (Fonteyn, 1979). Dancing is an expression of emotions, which leads to a connection between the body and mind. Under these conditions, the quality of movement

changes due to its close link to emotions. These movements go beyond the purely physical level, as they are no longer just mechanical processes of action (Chodorow, 1991).

4.2.3. Stress

Exercising to music bears great potential to reduce stress or improve coping strategies in handling stressors (Hanna, 1995), as dancing to music leads to a reduction of the stress hormone cortisol (Quiroga Murcia et al., 2010). Heinrichs, Baumgartner, Kirschbaum and Ehlert (2003) discuss the relation between social interaction and oxytocin, which arbitrates the reduction of blood pressure, heart rate and cortisol concentrations in stress situations. Dance combined with social interactions such as touching or interacting stimulates oxytocin release. Heinrichs et al. (2003) suggest that the combination of social support and an increased oxytocin concentration has a stress-buffering and stress-protective effect. Bräuniger (2012) confirms that DMT is an effective way to improve stress management and shows that DMT reduces psychological distress. Cohen and Walco (1999) state that the use of dance as a treatment for children with cancer fosters the integration of coping factors such as stress and psychological adjustment. Dancing helps to decrease the experience of stress and distinguish the negative interpretation of stressors (Wiedenhofer, Hofinger, Wagner, & Koch, 2017).

4.2.4. Self-concept and body awareness

In a dance intervention by Studer-Lüthi et al. (2013), the impact of dance on the own body concept was significant. Learners showed a greater self-acceptance of their bodies and an improved self-concept. Burgess et al. (2006) conducted an aerobic dance intervention on body image and physical self-perception in adolescent girls. The six-week intervention led to significant improvements and proved that dancing enhances body attitudes and physical self-perceptions in female adolescents (Burgess et al., 2006).

It is fair to say that body awareness changes through dance. Silver (1981) states that subjects see their bodies as more charming, energetic and powerful due to DMT, while Dosmantes-Alperson and Merrill (1980) found a significant improvement in self-evaluation due to dance therapy. Dancing educates people to develop personal growth and self-esteem. Through the creative process, people improve their personal strength, for instance by performing in front of others and experiencing the feeling of success (Marx & Delport, 2017). Dance provides new opportunities to experience interaction and cooperation with others (Ward, 2008).

4.2.5. Therapeutic effects in psychological variables

Dancing has a significant impact on mood and may induce the release of endorphins, which incite a state of happiness and confidence (Hanna, 1995). Emotional states can be rapidly changed by adopting a different posture or specific facial or bodily expression, which means that the perceived mood may shift toward the physically expressed mood (Hanna, 1995). Dance movement therapy appears to have therapeutic effects on psychological variables such as depression, anxiety, body attitude and self-acceptance (Dosmantes, 1990; Dosmantes-Alperson et al., 1980). Lassetter, Privette, Brown and Duer (1989) proved that DMT offers children the opportunity to explore their bodies, express personality, discover capacities for movement, promote social contact and enhance self-esteem. Additionally,

DMT has been successfully used to treat children with a maladaptive behaviour (Ward, 2008). Due to the holistic approach of dance interventions, dance therapy has been successfully used with psychiatric clients. With people's capability to express themselves through dance, the wholeness of a human being is achieved while dancing (Ward, 2008).

Jeong et al. (2005) used DMT with adolescents suffering from mild depression. The study shows an increase in serotonin concentration and a decrease in dopamine concentration after a dance intervention. A decrease in the concentration of these neurohormones leads to a decrease in the symptoms and disease severity of adolescents with mild depression. Edwards (2010) adds that dance can encourage the expression of destructive emotions such as depression and anxiety, which leads to relinquishing negative and frustrating emotions.

4.2.6. The healing function of dance

Dancing offers the opportunity to escape into a fantasy world in which people forget about their stress or pain (Hanna, 1995). Edwards (2010) defines healing as 'making whole' through the transformation from illness to health and states that dance teaches both joy in life and communal healing. In South Africa, dance is not seen as an event in itself, but as a connection with others and the external world (Mkabela & Luthuli, 1977). Through the rhythm of dance, energy is invoked and motivation is boosted.

Jay (1991) conducted a study to observe the effect of a dance program on the creativity of preschool handicapped children. Through the expressive and non-verbal methods of dance, children with special needs were given the opportunity to enhance their expression and communication skills. A creative dance program positively affects creativity, leads to an increased cognitive and kinaesthetic awareness and improves the expression of feelings, all of which have an unblocking potential for social competences (Jay, 1991).

4.3. Dance education

4.3.1. Modern educational/creative dance (Rudolf von Laban)

The integration of dance into the school was primarily based on Rudolf von Laban's theoretical writings about educational dance. Von Laban (1926) locates the educational value of dance particularly in the self-development. The pedagogical focus of creative dance lessons is not on a strict methodology but rather on the promotion of every learner's individuality. Expression, creativity, emotionality and the identity of the movements represent the centre of educational dance, whereas technical skills play an incidental role. Through the creative process, spontaneity is triggered, which leads to whole-body movements. With the involvement of the whole body, isolated motions are avoided, which are movement patterns that become dominant with increasing age. The idea of dance pedagogy is not to convey determined sequences of motion but rather to mediate the following categories of movement principles: room, shape and impulse (Von Laban, 1926). In educational dance lessons, teachers are encouraged to follow their own movement impulses, whereby the imitation of prescribed motions should be avoided. Fritsch (1985) even states that the mechanical adoption of movements should be refused in creative dance lessons: an accurate execution of certain agitations is secondary. The aim of dance lessons is to offer the learners an outlet for their emotions (Willke, 2005).

4.3.2. Educational dance

Koff (2000, p. 31) states that “dance in the curriculum provides a fundamental aspect of education that is not present in any other form”. One of the most important media for children’s development is their own movement flow. Primary school children should be encouraged to follow their own ideas and movement impulses, whereby the teacher should guide the children through instructions and suggestions (Von Laban, 1988). Von Laban (1988) emphasises that children should not imitate movements, primarily because what is more important for their development is their ability to react to stimuli.

Dance increases the perception of movement, which is a necessary component of the human ability to establish relationships with other people and the environment (Von Laban, 1988). Von Laban (1988) states that dancing enables the human body to experience relationships through which we perceive ourselves and others more consciously, and emphasises the feeling of joy, which helps to enter into harmony with oneself and develop a sense of belonging. Koff (2000, p. 27) emphasises that educational dance “enables every child, regardless of physical capabilities, to be expressive in a nonverbal manner – to explore and incorporate the physical self as a functioning part of the whole social being”. Marx et al. (2017) assert that through the experience of physical and mental freedom in dance education, learners are enabled to liberate their personal potential.

4.3.3. Benefits of creative movement activities

Creative movement activities enable students to follow their natural movements, which do not require pre-determined ways of moving. The fact that the movements are not oriented towards a given form results in an inclusion of all individuals, regardless of culture, talent or dance experience. Learners are provided with specific requirements to create a dance. The freedom of movement offers students the opportunity to discover new movements and thus expand their repertoire (Kauffmann & Ellis, 2007). By choreographing their own dance sequences, creativity is increased and problem-solving skills are improved (Hanna, 2008). The students learn to express themselves and train their body awareness (Smith, 2002). Through this process, their personal potential is improved, by which they become aware of their own competencies and learn to use their bodies and expressions. Body perception is trained and the acceptance of one's own body is required, thereby permitting individual and natural movements (Smith, 2002). Learners are able to choose which forms of movement feel natural and right for them personally. Following natural and intuitive movements incites a general feeling of well-being, which leads to an increase in motivation (Kauffmann et al., 2007). Creative movements promote students’ individuality and uniqueness, and through the freedom of movement, stress and pressure is minimised (Stinson, 1997; Kauffmann et al., 2007). Through the creative group work, not only are students’ individual movements executed, but also those of others are absorbed. The acceptance of individuality is signalled by adopting movements from fellow students. The creative group activities promote individuality and require socialisation and cooperation with others (Stinson, 1997).

4.3.4. Aesthetic education

According to Haselbach (1991) dancing is a suitable and meaningful form of aesthetic education, which focuses on self-initiated and self-directed learning as the content and objectives of the lessons become personally significant. This can change the students’

intrinsic motivation and increase their need to learn. The understanding and acceptance of different perceptions, classifications and forms of expression provide an important foundation for an open and tolerant mutual understanding. According to Haselbach (1991), aesthetic training strengthens children's self-concept and improves social behaviour. Dance lessons require a perception of the own body and stimulate an examination of personal attributes. The increased perception and examination of personal attributes enables children to develop a self-concept of their abilities (Studer-Lüthi et al., 2012). Promoting self-awareness through movement plays an important role in children's development. Furthermore, dance promotes individual and cognitive development, which is essential for children's growth. Studer-Lüthi et al. (2012) confirm in their study that dancing at school is a valuable and resourceful addition and enrichment to the school education of children. Dance interventions have a positive impact on learning and may even improve children's performance by positively influencing their motor activity and self-awareness (Studer-Lüthi et al., 2012).

If «Moving-to-music» lessons can help children face their fears, gain more trust in their abilities and become aware of their possibilities as well as the potential of others, is such a justification not sufficient for pursuing an education through dance? Ward (2008, p. 35) adds that "everyone will benefit if you introduce dance to your school or community setting".

5. Methods

5.1. The *KaziBantu* toolkit

The *KaziBantu* toolkit was developed for South African primary schools, grades 1 to 7. The project is currently in its first stage of study and a first draft of the toolkit will be presented at the end of April 2018. The toolkit contains a teacher toolkit and a children's toolkit. The Swiss master's students developed the children's toolkit, while our colleagues in South Africa are responsible for the teacher's toolkit. The children's toolkit was subdivided into three different topics: «Physical-education», «Moving-to-music» and «Nutrition-and-health». The lessons are aimed at improving six to twelve-year-old school children's physical competences and motor skills, and are expected to benefit students' body- and self-awareness, and self-consciousness. Moving together supports active participation in the school community and promotes cohabitation. The *KaziBantu* toolkit teaches different movements, games, sports and competition forms, and can help the children to develop cognitive, emotional, motivational, volitional and social aspects of their personality. During the school day, children's natural need for movement should be considered.

5.2. The «Moving-to-music» toolkit

The «Moving-to-music» toolkit aims at offering simple and effective lessons that are easy for teachers to apply. The toolkit should imply as few inhibitions as possible and no additional burden should be felt due to the implementation of a «Moving-to-music» lesson. The toolkit's content is based on basic skills and games, and the lesson plans are designed for trained and untrained teachers alike, whose oral instructions guide the learners through the whole lesson. The lessons should be joyful for learners and contain creative and playful tasks. The toolkit's name stands for the content of the lessons, which are filled with exercises carried out

to music, moving and dancing to drums, dance improvisation exercises and creative group tasks. The task of developing the «Moving-to-music» toolkit is split between Lize van der Walt and myself.

5.2.1. What does «Moving-to-music» mean?

The term «Moving-to-music» is divided into three components that play a role in the toolkit. The first is 'moving', which takes various forms, such as exercising, running, dancing and walking, to name but a few. In the toolkit, learners' movement is the main goal, whereby the cardiovascular system should be enhanced and school children are engaged to improve their physical and mental health.

The second part of the toolkit embraces music, which this specific toolkit tries to include, also extending to music culture. The term music embraces body percussion, drums, songs (either using a speaker or self-made songs) and singing. Using different forms of music such as rhythm, body percussion, composed songs and self-made songs allows the lessons to span the full scope of music and offers a broader and multi-layered view of music. Through composing songs and playing self-made music with drums, this toolkit's music section achieves an own spectrum and triggers the creativity of school children. Considering the different resources of every school, musical adaptations and optional choices to specific exercises should be given.

Thirdly, the term «Moving-to-music» indicates the toolkit's embrace of a wide range of movements to music, whereby different forms of 'moving' and 'music' are implemented by offering diversified combinations and complementary applications. Most of the content can be understood as dance, but parts of the lessons can also be viewed as exercising to music or 'task-related-moving', whereby music plays a background or accompanying role. The term includes activities that range from very sporty movements to dance steps and creative group activities. No dance style is given and not all tasks must be understood as dance.

5.2.2. Why «Moving-to-music» at primary schools?

Gilbert (1992) discusses the development of the brain in primary school children, emphasising that they learn faster and more efficiently between the ages of four and twelve. During this age, the foundation for later learning is based on novelty, repetition and stimulation, which makes the integration of dance and creative processes in primary school important and is therefore representative of the ideal development stage in which to offer these activities (Gilbert, 1992).

5.3. Procedural method

5.3.1. Pre-examination and first field stay

During the pre-examination phase, the first steps towards developing a dancing toolkit were taken to create a dance toolkit for disadvantaged primary schools in Port Elizabeth. As African culture is very different from Western culture, I needed to experience the cultural differences before I could start creating and planning a toolkit. Before we started gathering ideas for the toolkit, several questions were asked: How do they dance? What is their traditional dance? Do they dance at the schools and if yes, what is the structure of dance lessons? Are the teachers able to teach dance? Do typical rhythm, clapping and dancing

games already exist? What are the children's desires concerning the physical education lessons? I gathered all my questions and needed information, for which I embarked on a three-week exploratory trip to experience the dance culture in the townships in Port Elizabeth. I met dance teachers and experts, who provided me with information about current trends, traditions and routines. I visited the schools and was allowed to experience their traditional dance. For the accompanying music, an old container and a piece of wood are used as drums, while the children sing and clap. In contrast to the dance culture in Europe, electronic aids are sometimes entirely missing. Through conversations with teachers, I learned that the children dance frequently, but that dancing lessons always take place outside of the school hours and are voluntary. However, practically all children like to dance and teach each other new moves in their free time. I observed different physical education lessons in different schools and different grades, whereby I observed remarkable differences among teachers and their lessons. Most of the foundation phase teachers (grades 1 to 3) are specialised in teaching physical activity lessons, while the majority of the intermediate phase teachers (grades 4 to 7) are not.

5.3.2. Literature research and the 'intensive four-week *KaziBantu* workshop'

The development of the lessons started with a kick-off meeting in August 2017, whereby we took part in a four-week intensive working phase together with the South African master's students. Through a literature research, we tried to find already existing dancing toolkits, which appeared to be inexistent. We found a few ideas for a «Moving-to-music» toolkit and were inspired by the contents of '*Kompetenzbox für den Sportunterricht*' (Sportamt der Stadt Zürich, 2016), the book '*Choreografischer Baukasten*' (Klein, 2015) and Natalie Mathys' master's thesis, titled '*ProDance*', for which she developed a toolkit for high school teachers in Switzerland (Mathys, 2015). Additionally, we found several physical education toolkits that inspired us regarding layout and structure. Nevertheless, we realised that the task of creating a dancing toolkit for South African primary school children had not been conducted and were confronted with several barriers, which we had to deal with primarily.

We examined the South African school curriculum, the so-called *Curriculum Assessment and Policy Statement* (CAPS), and created a résumé of the relevant factors for dance lessons in primary schools in Port Elizabeth. The «Moving-to-music» toolkit forms a part of the creative arts subject in South Africa. Within this subject, learners are exposed to dance, drama, music and visual arts (Department of Basic Education Republic of South Africa, 2011a; 2011b; 2011c). According to the Department of Basic Education of South Africa, the main purpose of creative arts is to promote learners' development as creative, imaginative individuals with an appreciation of the arts. Depending on their age and term, different foci (corresponding to «Moving-to-music») are developed in the creative arts lessons, such as creative games and skills, improvisation and interpretation. According to the CAPS (grades 1 to 7), our «Moving-to-music» lessons should include following topics, to name but a few (Department of Basic Education Republic of South Africa, 2011a; 2011b; 2011c):

- Warming-up the body (e.g. using different levels, circles, angles and curves, stretching and curling the spine, travelling movements and freezing, body-part isolations, floor work, neutral posture and character postures, coordination of isolated body parts and isolated movement of joints)

- Locomotor movements (e.g. walking, skipping, running forwards and backwards, hopping, jumping, galloping, marching and turning)
- Non-locomotor movements (e.g. twisting, swinging, side bends, jumps, reaching, falling, stamping, bending knees, and shoulder and wrist circles)
- Axial movements (e.g. twisting and swinging arms)
- Copying of movements, rhythms and movement patterns, such as follow the leader, walking, skipping and clapping
- Isolations of body parts (e.g. as part of an imaginative experience)
- Rhythm (e.g. listening skills through music games using different tempo, pitch, dynamics, duration)
- Pair-movement sequences using copying, leading, following and mirroring, question and answer, and meeting and parting
- Expressive movement using elements of time, space, weight, energy and force, and developing relationships
- Name games (e.g. using clapped rhythms and body percussion to explore the meter/accent of the names)
- Creative games combining music and movement (e.g. physical movements to describe high/low notes)
- Games exploring rhythm, creativity, direction, call and response, and sensory awareness
- Freeze games focusing on control and use of space
- Call-and-response games (e.g. call-and-response songs with movements)
- Body percussion
- Body awareness and exploring space, direction and shape
- Movement sequences exploring contrasts, including contrasts in time (slow/fast), levels (high/medium/low) and directions (forwards/backwards/sideways) and force (smooth/jerky, strong/light)
- Movements in different pathways
- Movement responses to different types of music
- Action songs (e.g. performing actions related to the specific rhythm of a song)
- Improvisation and interpretation (e.g. movements appropriate to a role in different situations, choosing and making personal movement sentences with a beginning and ending, representing objects and ideas in movement, role play related to selected topics or stories told by the teacher, imitating everyday activities, movement sentences showing a beginning, middle and ending on a selected topic, working in small groups, creating a mood)
- Learn South African dance movements
- Individual and group performances and processes
- Cooling down the body and relaxation

For each grade, we created an overview of all the points and contents of the CAPS concerning creative arts lessons. Because of the detailed examination of the South African curriculum, the main points mentioned above form the foundation of the «Moving-to-music» lessons and were always considered while developing the toolkit.

Due to the lack of existing dance toolkits for a special settings such as that of South African disadvantaged primary schools, we discussed feasible ways to develop a children's toolkit with our Swiss expert Béatrice Goetz. During this process, we tried to find different approaches to developing a «Moving-to-music» toolkit for teachers in South Africa. The most difficult task was to find a way to convey a dance lesson in the form of a toolkit. We had to reject the idea of video tutorials due to the lack of electricity and poverty issues. Many problems and challenges arose concerning the development of a «Moving-to-music» toolkit and we had to find solutions by focusing on the project's aim and potential. The main focus, and simultaneously the most difficult task, was to create dancing lessons for teachers with no experience. The content of the lessons could not be based on the assumption that active teachers who are willing and capable to demonstrate dance movements would be involved, while typical dance lessons are usually led by a demonstrating person. This fact emphasises the difficulty of developing a dancing toolkit in underprivileged areas such as the townships in Port Elizabeth. The lessons must be simple and convertible for primary school teachers without pre-knowledge. We gathered ideas for «Moving-to-music» lessons that required no active leader. Due to these circumstances, we decided to create lessons in which the teacher or leading person only uses verbal instructions, without being forced to demonstrate movements.

5.3.3. Field stay and pilot phase

At the beginning of October 2017, the entire Swiss *KaziBantu* team flew to Port Elizabeth. The pilot phase started after the successful DASH symposium and the launch of *KaziBantu*. The purpose of the *KaziBantu* pilot was to test the first drafts of the toolkit. Prior to testing the lessons, several meetings and brain-storm sessions with South African experts took place. We observed the workshops of Marelize Marx at the NMU, who is a lecturer for primary school teachers and was completing her PhD in dance education in the period of the pilot. She helped us with the development of «Moving-to-music» lessons, as she was experienced in creating lessons for teachers without a dance background. In addition to Marx, Nicki-Ann Raypen supported me with further ideas and input for the design of creative dance classes. Raypen is a dance teacher and conducted workshops for talented secondary school children from the townships at that time. Raypen and Marx helped me establish already existing ideas and contributed to the expansion of the «Moving-to-music» lessons with their input.

During the field stay, we had the opportunity to test the first «Moving-to-music» lessons in disadvantaged primary schools in Port Elizabeth. We observed the creative arts lessons of different grades and teachers. The first and most important issue for us to determine was whether it would work to hand over ready-made lessons to the teachers in the townships. Due to the lessons' direct instructions, the teachers could read the instructions out loud without preparing in advance. The underlying idea was thereby to determine if our lessons were suitable for teachers with and without an advanced preparation of the lessons or experience in dance. They could either directly adopt our lessons and give instructions as stipulated or be inspired by the ideas and execute the lessons in their own way. During the testing period, we monitored different ways of implementing our lessons. We observed that some of the teachers read our instructions 1:1 and did everything as described in the lesson plans, while others were inspired by our ideas and input, and adapted the lessons according to their experiences. Both options were and still are fantastic. All of the observed lessons

proved that the concept of offering teachers ready-made lessons for their creative arts lessons worked. The teachers' different implementations showed that there is an existing potential for our lessons to be used by teachers with different backgrounds and that on a number of occasions we even succeeded in providing inspirational ideas for teachers.

As we only worked with first drafts of the lessons during the pilot phase, illustrations were still missing. By observing the lessons, we were able to determine which movements were not clearly described and which exercises require a graphical representation of movements. The observation of creative arts lessons allowed us to obtain a good idea of the implementation and feasibility of the lessons in this setting.

During and after our field stay in Port Elizabeth, we modified and adapted the toolkit based on the school visits and the exchange with South African experts. Marx revised every single lesson and offered feedback and numerous suggestions for further proceedings in the development of the «Moving-to-music» toolkit. The pilot phase provided us with the most important information for the subsequent procedure and the implementation of the lessons. In this phase, the different foci of van der Walt's lessons and mine became apparent. By dividing the focus of the lessons, we developed two different approaches, which complemented one another well. The approach of my lessons falls under the category of creative educational dance.

5.3.4. Revision phase

The toolkit was adapted and edited after the field stay in Port Elizabeth. Thanks to the pilot phase, we found ways to structure the lessons. The ideas and content of the lessons arose from first-hand experiences, discussions with experts, workshops, already existing material such as *'ProDance'* (Mathys, 2015), *'Choreografischer Baukasten'* (Klein, 2015) and *'Kompetenzbox für den Sportunterricht'* (Sportamt der Stadt Zürich, 2016), and observations of learners. At the end of December 2017, a first draft of the «Moving-to-music» toolkit was finished and forwarded to *Rooftop*, our illustration and graphics company. During this phase, there was a continuous exchange between the South African, Swiss and Rooftop team regarding the design and implementation of the toolkit.

6. Results/product description

The lessons are based on the South African curriculum, the so-called CAPS (Department of Basic Education Republic of South Africa, 2011a; 2011b; 2011c), combined with the Swiss curriculum *'Lehrplan 21'* (Deutschschweizer Erziehungsdirektoren-Konferenz, 2013) and the toolkit *'QUIMS – Qualität in multikulturellen Schulen'* (Bundesamt für Sport BASPO, 2017). The «Moving-to-music» toolkit contains 16 lessons per grade, resulting in a total of 112 lessons for primary schools from grades 1 to 7. I created 56 creative-dance-lessons focussing on exploratory activities, self-determined movements and creative group activities. Van der Walt's lessons complement the toolkit with action-song-lessons. Our lessons alternate every two lessons to represent the diversified teaching material with as many diverse inputs as possible, thereby offering an alternation of different lesson foci. The lessons do not build on each other and there is no necessity to know previous lessons. Consecutive lessons would require regularity and discipline, which cannot be expected of local educational institutions, due to the circumstances in the townships in Port Elizabeth,

South Africa. It is quite possible that the «Moving-to-music» lessons are not carried out for a few weeks due to the weather, shootings, holidays, shortage of teachers and so forth. Given the lessons' independent structure, the teachers are able to conduct a lesson from the toolkit at any time, regardless of how intensively they have worked with previous lessons. A single lesson is subdivided into three parts: warm-up, main part and cool-down.

This dance intervention should engage learners and teachers to create a non-judgemental atmosphere in which learners have the opportunity to enrich their personal resources by moving however they wish, combined with a supportive togetherness aimed at providing a safe, non-competitive platform. The *KaziBantu* «Moving-to-music» lessons are inspired by the ideas of Rudolf von Laban and their focus is on the educational dance values of a dance lesson. This approach offers lay participants the opportunity to lead a dance lesson, without requiring any experience or understanding of the basic techniques in dance. Creative dance does not require given or demonstrated movements, which offers a great opportunity for the *Kazibantu* project, given the barriers and problems in the townships of South Africa. Schmais (1985) underlines the positive effects of the synchronic and rhythmic structure of dance interventions such as warm-ups, creative movements and the use of music, which leads to a promotion of group cohesion among participants. As a result of this fact, the «Moving-to-music» toolkit may promote group cohesion and helps learners in the townships of Port Elizabeth to develop a sense of belonging within a group. Small details in dance lessons can have a significant impact on individuals. For example, many of the lessons' exercises and contents are taught in a circle, which is a symbol of community, having no beginning or end (Edwards, 2010). Levy (1995) describes that circle formations contribute to the feeling of group unity.

6.1. Creative dance

With the «Moving-to-music» toolkit, learners acquire knowledge and are given time to create their own steps and choreography. Creative dance enables every learner in South Africa to explore and incorporate the physical self. Primary school is the ideal time to implement creative movement as a form of dancing (Kaufmann et al., 2007). Children's education seeks goal-oriented achievements, performance and discipline. Creative dance offers an escape from a mostly uniform school environment by means of promoting children's uniqueness and individuality (Kaufmann et al., 2007), and offers learners the possibility to explore new physical, social and emotional territories (Joyce, 1994). The freedom of the tasks proves to be less stressful for learners, as the mental, emotional and physical layers go in the same direction and thus do not need to work against the resistance.

6.2. Guided exploration and improvisation

The «Moving-to-music» toolkit lessons do not require that someone exhibits pre-determined movements. The lessons include open creative tasks and improvisation exercises, which enables the teacher to stay in a controlling and non-presentational role. Improvisation components in a dance lesson are guided by the use of verbal instructions, which lead to an exploration of the movement forms of dance and the expressions of emotions (Von Laban, 1956). Improvisation activities trigger creative self-exploration and self-discovery (Rowe, 2008). Furthermore, learners learn to recognise and expand their motor skills and abilities by an occupation with self-developed movement material (Zimmer, 2012). Rowe (2008, p. 13)

states that “the improvisation activities were valued as dance learning tools however, as they provided the dancers with a chance to more generally explore movement dynamics and improve their kinaesthetic competence”.

6.3. Group activities

Most of the lessons (especially in the intermediate and senior phases) include creative group activities, whereby learners need to solve a specific dance task together. Creative group work promotes a bond between learners, who learn to share their ideas and accept individual differences, thereby leading to a promotion of spontaneity and creativity, and an increase of leadership and communication skills. Learners are asked to cooperate within their group, which fosters group cohesion, team building and group decision-making. The simultaneous performance of learners leads to a relief of stress, as they all move with the same instruction, thereby creating a feeling of detachment and belonging, whereby the focus on the individual disappears.

6.4. Foundation phase vs. intermediate/senior phase

The foundation phase lessons (grades 1 to 3) differ from the intermediate (grade 4 to 6) and senior (grade 7) phases. The older learners become, the more they have to work independently in small groups and the more challenging their tasks become. Most of the time, they are asked to create their own choreography at the end of the lesson, whereby the preceding exercises in the lesson provide preparation and input for the creative group activity. The amount of creative group activities increases with the children’s age, whereas the focus of lessons in grade 1 to 3 is on playful games and action stories. Foundation phase learners are slowly introduced to creative group activity, although the task is always age-adapted and not too complex. Von Laban (1988) stresses that older children have a desire for completed dances and a need for a feeling of working towards something special, while younger children have a need for movement games in which their movement impulses are practised.

6.5. Integration of cultural dance activities

The «Moving-to-music» toolkit offers a platform to integrate cultural dance activities into the creative art lessons in Port Elizabeth. Through different suggestions of musical accompaniments and creative lesson tasks, cultural dance may be involved. The specific lesson foci of the toolkit are based on cultural dance in South Africa. In a review article of Olivera (2008), the benefits of non-traditional types of exercise are underlined. Studies confirm that non-traditional types of exercise, such as cultural dance, may engage more people who do not respond to traditional physical activity and have lower levels of participation in physical activity. The link to culture thereby appears to play a relevant role. Including cultural dance into the «Moving-to-music» toolkit represents the opportunity to address a broader and wider range of people, and has the potential to have a positive impact on community health, both physically and mentally (Olivera, 2008). Additionally, cultural dance prevents excessive weight gain, promotes stress management, increases the interest in physical activity and benefits overall life satisfaction (Olivera, 2008).

6.6. Repetitions and repetitive movements

Whether in a single exercise from one lesson or over the whole school year, the toolkit provides repetition. Repetitions take place in certain movement sequences and elements, exercises and games, and rhythms. Repetition forms part of African aesthetic values and enables learners to absorb and maintain new movements. Additionally, repetition enables the acquisition of necessary skills through time, involves continuity and allows internalisation (Amegago, 2009). Repetitions are rooted in African culture and symbolise certain cultural values of the African music and dance culture (Amegago, 2009). Through repetitions, several advantages and opportunities are brought into the «Moving-to-music» toolkit and dance-related development. They involve providing routine for the learners and teachers, which decreases several burdens of using the «Moving-to-music» toolkit. Repetitions create a recognition value for the learners and free teachers from the need to deal with new content in the following lesson, allowing them rather to take up already known lesson contents and possibly even build on them. Due to this fact, most of the activities are repeated twice per grade. The only exception is the 'creative group activity', which includes different tasks in every lesson in order to trigger the creativity of the learners in as many ways as possible.

7. Discussion and conclusion

7.1. Research question 1

The first research question is which psychological and physiological benefits dance/«Moving-to-music» has on disadvantaged primary school children in Port Elizabeth. In the literature research, various benefits of «Moving-to-music» in different settings and among different peers were identified. There is evidence to support the multifaceted beneficial implications of dance for children and studies highlight that dance has numerous effects on individuals' physical, mental and social health (Ritter et al., 1996; Jain et al., 2001).

The physical benefits comprise cardiovascular improvements (Kirkendall et al., 1983; Ward, 2008), such as increased endurance and aerobic capacity; the prevention and management of chronic diseases (Ward, 2008); musculoskeletal changes, such as increased muscle strength and flexibility; improved muscle tone and tension release (Payne, 1984; Hanna, 1995; Bremer, 2007); increased stabilisation of muscles and better postures (Bläsing et al., 2012); improved coordination, locomotion and agility (Ward, 2008; Alpert, 2011); improved bone mineral density (Matthews et al., 2006; Bennell et al., 2000; Khan et al., 2000) and increased brain activity (Alpert, 2011). The physical benefits of dance result in a reduction of health-risk factors such as obesity and chronic diseases (Ward, 2008).

The psychological benefits of dance include factors such as reduction of stress (Hanna, 1995; Cohen et al., 1999; Bräuniger, 2012); improvements in self-acceptance, self-esteem and body-awareness (Dosmantes-Alperson et al., 1980); enhancement of body image (Hanna, 1995); positive impact on mood and an increase in overall well-being by the promotion of joyful and confident feelings (Gurley et al., 1984; Hanna, 1995), which leads to a reduction of depression and anxiety (Dosmantes, 1990; Dosmantes-Alperson et al., 1980).

As mentioned above, dancing leads to a reduction of health-risk factors, such as overweight and obesity, and helps to prevent and manage chronic diseases (Ward, 2008). As Hurter et

al. (2007) underline in their article, South African children are becoming increasingly unfit, sedentary and overweight. Several studies highlight the positive effects of dance on the cardiovascular system. A change in South Africans' lifestyle-related health behaviour is urgent and indispensable for a healthy development of primary school children. With the «Moving-to-music» toolkit, this problem may be counteracted and a change in the insufficient activity level of South African children may be achieved. Matthews et al. (2006) add another aspect to the importance of being physically active, namely that it is essential for children's skeletal development. The bone mineral density lays the basis for a stable body and reduces the risk of osteoporosis in later life (Khan et al., 2000). In addition to a healthy skeleton, dancing leads to an increased body balance and better posture (Bläsing et al., 2012), which enhance the coordination and quality of movement (Ward, 2008). An improved quality of movement and posture may also benefit learners in South Africa in other physical activities and daily strains. The last main physical benefit of the «Moving-to-music» toolkit encompasses a possible change in the brain capacity of primary school children. Berrol (1992), Alpert (2011) and Studer-Lüthi et al. (2012) discuss the effect of dance on brain capacity and conclude that dancing increases the brain activity, which leads to an improvement of attention and concentration. Primary school children in underprivileged areas in Port Elizabeth may benefit from increased attention and concentration in other subjects, such as mathematics and science. The «Moving-to-music» toolkit may provide an improvement of learners' academic achievement due to an improvement of their brain capacity.

The fact that dancing provokes a change in psychological variables such as depression, anxiety, body attitude and self-acceptance (Dosmantes, 1990; Dosmantes-Alperson et al., 1980) shows the potential of the «Moving-to-music» toolkit, as it offers learners moments in which they can forget their daily struggles and release stress. Already in 1984, Gurley et al. acknowledged the overall change in well-being resulting from dance lessons, which is one of the main goals of the *KaziBantu* toolkit. The toolkit aims at improving the overall health of school children, which in the future may be supported and achieved by «Moving-to-music». Children's health is determined by several factors, such as stress and its components. According to Hanna (1995), Bräuniger (2012) and Wiedenhofer et al. (2017) dancing reduces stress and improves stress management, for instance by a decreased experience of stress and by a change in the interpretation of stressors. «Moving-to-music» lessons offer an opportunity for an overall decrease of stress in the daily life of underprivileged primary school learners. A change in primary school children's stress levels may be expected to occur, thereby leading to a less stressful life in one of the poorest areas of Port Elizabeth, which in turn may lead to an improved participation in both academic and physical subjects. A reduction of stress is likely to have an impact on the self-development. Marx et al. (2017) emphasise that learners develop personal growth and self-esteem through creative processes. It may be stated that the creative and educational dance aspects of a «Moving-to-music» lesson can contribute to self-development of primary school children. As Silver (1981) describes, children's perception is changing into a more graceful, active and strong human being. The «Moving-to-music» toolkit may contribute to this development in a similar way.

Through dance interventions, a holistic approach to the complementary health of a child can be achieved. Dancing affects health and the development of the whole body, including its

bodily, emotional, cognitive and cultural dimensions (Hanna, 2006). In conclusion, it can be stated that dance has several multi-layered benefits on the human body and that the health of South African primary school children may be improved on various levels. Kiepe, Stöckigt and Keil (2012, p. 411) state, that “the creative approach of dance (movement) therapy seems to improve mental and physical conditions including neurohormonal changes and quality of life”. To achieve these health changes in learners of disadvantaged areas in Port Elizabeth, the «Moving-to-music» toolkit may be one of the feasible outcomes of the intervention.

7.2. Research question 2

The second research question of this thesis is which benefits the integration and implementation of a dance education approach have in a school setting. The literature on dance education shows different advantages and opportunities for the integration and implementation of this approach in a school setting. Dance education aims at promoting the individuality of every learner. Von Laban (1926) addresses the importance of every child’s own movement flow and engages teachers to guide learners through instructions and suggestions so that primary school children are encouraged to follow their personal ideas and movements. Due to the barriers and circumstances mentioned in the previous chapters (e.g. untrained teachers and large class sizes), the approach of educational dance has great potential for implementing dance in the disadvantaged primary schools of Port Elizabeth. Through von Laban’s approach of dance pedagogy, determined sequences of motions should be avoided, which means that there is no need for a dance-trained teacher who shows given movements. Based on the non-requirement of pre-determined ways of moving, the inclusion of all individuals may be ensured by educational dance (Kauffmann et al., 2007), which enables every child to participate in «Moving-to-music» lessons, regardless of their physical capabilities and special needs (Koff, 2000). Creative movements promote the individuality of every learner by allowing them to follow their own movement impulses. The content and objectives of a «Moving-to-music» lesson become personally significant due to self-initiated and self-directed learning. Haselbach (1991) states that this learning approach may cause a change in intrinsic motivation, which can lead to an increase in the need to learn. The «Moving-to-music» toolkit can have an impact on children’s learning behaviour and may change primary school children’s motivation to learn and participate actively during school. Dance education facilitates not only an inclusion and integration of learners with special needs but also motivates learners who are unmotivated to execute traditional forms of exercise (Ward, 2008). Hence, dancing does appeal to a large group of people and addresses their development on the physical, emotional and cognitive levels (Gurley et al., 1984; Ward, 2008). The skills acquired through dance, such as an increased focus and concentration, may benefit learners by helping to improve their social and academic development in other areas (Lobo & Winsler, 2006).

Through an implementation of «Moving-to-music» lessons, educational dance empowers teachers by offering them the opportunity to instruct learners through given instructions, without showing any movements. Untrained teachers are not forced to move or dance. Von Laban (1926) even states that prescribed motions should be avoided in educational dance lessons, which underlines the importance of implementing «Moving-to-music» lessons in poor areas such as the townships of Port Elizabeth, where teachers are not provided with

adequate movement material. The «Moving-to-music» lessons comply with von Laban's theoretical writings about educational dance, who underlines the importance of facilitating the own movement flow for children's development. Von Laban (1988) states that teachers should guide children through instructions and suggestions, rather than require the imitation of movements. The toolkit provides effective instructions for teachers to guide learners through a whole «Moving-to-music» lesson, in which learners explore new movements by following their own movements. Due to their lack of education and experience, teachers choose not to offer sports or dance lessons, even though it is compulsory according to the CAPS (Department of Basic Education Republic of South Africa, 2011a; 2011b; 2011c) and absolutely essential. The versatile approach of dance education permits an implementation of dance in many settings, including those that involve children with disabilities or special needs (Jay, 1991) and behavioural problems (Ward, 2008), regardless of their physical capabilities (Koff, 2000). Creative dance allows for an inclusion of all individuals (Kauffmann et al., 2007), thereby addressing and supporting a wide range of physical and mental problems (Quiroga Murcia et al., 2012). Dancing appeals to a large group of people, as well as people who are unmotivated to execute traditional forms of exercise (Ward, 2008). Especially in disadvantaged areas such as the townships of Port Elizabeth, including a diversity of learners is inevitable in executing «Moving-to-music» lessons. Educational dance provides an acquaintance with heterogeneity, which is dominant in disadvantaged primary schools due to large class sizes and poverty issues. The handling of heterogeneity must be guaranteed for the successful implementation of dance in primary schools. Olivera (2008) emphasises the fact that dance addresses a broader range of people. With the integration of cultural dance, more people who do not respond to traditional physical activity can be addressed. Accordingly, an increased participation level in «Moving-to-music» and thus in physical activity can be hypothesised, which leads to the overall success of engaging more active children. The integration of culture and the inclusion of every single child may lead to a shift from an inactive to an active life in disadvantaged primary schools in South Africa, resulting in an increase in quality of life and well-being.

7.3. Additional aspects

The subjects «Physical-education» and «Moving-to-music» complement each other. The aspects of educational dance cover what traditional sports cannot offer and fields in which physical education and traditional sports are limited. Sport tries to achieve a similar level among learners in order to create a competitive situation and make performance measurable. The aim of traditional sport lessons is for every learner to yield a performance level that is measurable. Unlike sports, in which the goal is for learners to achieve a similar level of performance, educational dance aims at allowing and encouraging individual performance levels by offering different ways to solve a task. Educational dance works with heterogeneity and allows it, as learners have options and diverse ways to solve a task. Through creativity, learners are able to find their own solutions and are provided with options, which are nevertheless ultimately comparable. Disabled children or learners with special needs are integrated in the lessons, without a necessity for separation and special therapy. The «Moving-to-music» toolkit inspires inclusion and creates the possibility for everyone to participate. The «Moving-to-music» lessons facilitate learning through pressure relief. There is no pressure to perform in creative dance lessons and there is no wrong or right, which often results in non-measurability. Through their openness and improved body awareness,

learners may feel more comfortable. By feeling good about what one does, physical, mental or social well-being emerge, which in turn lead to increased motivation and repetition, for instance of dance movements or general physical activity.

Kiepe et al. (2012, p. 411) conclude that “dance as therapy includes not only physical, emotional and cognitive but also cultural aspects. It enables a multisensory experience for patients and is consequently more than movement patterns”. It is known that being physically active is important, but the fact that dance can also bring an improvement in academic performance speaks for the importance of its use. One of the main goals of the *KaziBantu* toolkit is to create simple and easy-to-apply lessons that can be conducted by trained and untrained primary school teachers and do not pose an additional burden. Through the approach of educational and creative dance, untrained teachers are facilitated to teach dance in school, even if they have never taught it. With the aid of numerous direct instructions, teachers are even able to conduct a whole «Moving-to-music» lesson without preparation. Direct instructions enable teachers to simply guide learners by reading the written tasks aloud. Lessons requiring previous preparation would not be carried out by the majority of teachers due to their shortage of time. The «Moving-to-music» lessons are adjusted to the setting and facilitate a spontaneity regarding the choice of specific lessons from the toolkit, whereby lessons can be easily duplicated or conducted with no preparatory time.

7.4. Limitations and suggestions for further research

The presented literature findings illustrate a part of the setting-specific relevant literature concerning the benefits of dance. It is beyond the scope of this paper to examine the entire field of results concerning the physiological or psychological benefits of dance. The literature offers more to discover and immerse oneself in regarding the main benefits of dance in specific areas. This thesis is unable to encompass an exhaustive literature research but offers support for the use and implementation of a «Moving-to-music» toolkit in disadvantaged primary schools in South Africa. The reader should bear in mind that the study is based on the most important benefits related to the setting of this study and to the development of the *KaziBantu* project. There is much more to detect in the literature regarding the benefits of dance and the implementation of dance education in a South African primary school setting. The *KaziBantu* toolkit is based on limited literature and specific experience and expertise. Currently, the results, i.e. the contents and the structure of the toolkit, are only derived. An assessment of the product can only take place after all lessons have been completed. Valuable facts and feedback are gained from testing. By actually implementing the toolkit in the system, differences in theory and practice can be analysed by matching my practical experience with the theory. A revision of the toolkit should take place in a next step, by focusing on the congruencies and differences of theory and practice.

Further research for the integration of dance education in a double-burden diseased country such as South Africa is needed. The studies of this research provide evidence that dance is an effective activity for the promotion of children's health, but there are very few well-controlled studies. Greater well-controlled researches and randomised empirical studies for all forms of dance as an intervention by which to improve the health of primary school children are needed.

7.5. Conclusion

On the basis of the results of this research, it can be concluded that a «Moving-to-music» toolkit offers diverse positive benefits for primary school children in some of the poorest areas of Port Elizabeth, South Africa. These data support the view that the implementation of a «Moving-to-music» contributes to a healthier and happier life of school children in South Africa and that dance fosters a wide variety of domains for the healthy development of a child. In my opinion, the «Moving-to-music» toolkit has great potential. Its special value is that all learners and teachers are included, even those who lack optimal sports conditions and often suffer from frustration experiences. In the «Moving-to-music» toolkit, teachers and learners are empowered to conduct and participate in a lesson, as a creative approach to dance education renders possible the inclusion of untrained and un-athletic individuals. Through repetition and multi-faceted tasks, learners improve and teachers become more confident and secure. The individuals determine the pace of learning, which is adapted to their particular level and not determined by others. As the literature confirms, dance has multilateral effects on the individual. It may therefore be assumed that the «Moving-to-music» toolkit is likely to change learners on a physical, psychological and mental level. The framework in which these changes take place must be tested in a further step so that future data-based statements can be made about the toolkit.

Despite the complexity of the project, dance in general and particularly in the primary schools of South Africa has the potential to change the lives of children. In this thesis, a series of different studies are presented that show the multi-faceted physical and psychological benefits of dance on different aspects of the human body. This is supported by evidence that dance has a positive impact on individuals' overall health and well-being. In addition, the benefits of the integration and implementation of dance education are illustrated in this thesis, which highlights the opportunity of implementing «Moving-to-music» lessons in disadvantaged primary schools in Port Elizabeth. It can be concluded that the «Moving-to-music» toolkit may provide children with improved development opportunities and an enhanced daily school routine, which will be tested in a further step of the *KaziBantu* project.

8. Outlook

Regular dance lessons would be very valuable in the townships of Port Elizabeth. To improve the quality of the lessons, training must be offered in the future. The teachers' training should be carried out for active teaching and for prospective primary teachers. Students and teachers in dance-related disciplines could act as experts in the schools by supporting, coaching and helping other teachers. As a change in the educational system is a lengthy and radical process, I recommend that external dance experts are made available in the meantime or in parallel with this project. In addition to the lessons that are conducted by the inexperienced teachers themselves, lessons can also be held in which both the students and the teachers can learn new skills and thus expand their technical repertoire.

The toolkit's success is to be ensured through a close cooperation between all sub-areas, such as «Physical-education», «Nutrition-and-health», and «Moving-to-music» toolkit.

In the future, DASH's study results can be supplemented with the *KaziBantu* findings. In addition to sports lessons, there are now additional «Moving-to-music» lessons, which open

up further possibilities and opportunities to promote children's health through a holistic approach. The «Moving-to-music» toolkit has the potential to raise yet more health markers than only physical ones. Further parameters for the collection of children's health should be integrated. While the focus of the «Physical-education» lessons is on physical health and motoric competences, other important health markers regarding mental health can be collected in a next step by examining the effects of the «Moving-to-music» toolkit. Questionnaires should include physical, mental and social aspects. The existing results of the DASH study may be complemented by further parameters and markers for an evaluation of South African learners' health and can be additionally extended with the findings of the *KaziBantu* project. The importance of the *KaziBantu* project became apparent by its holistic approach to improving the health and well-being of South African primary school children. There exists a lack of evidence-based interventions in settings such as the townships in South Africa. This project pursues to fill the current gap in scientific research by adopting an integral approach to health-stimulating factors. The holistic examination of the effects of «Physical-education», «Moving-to-music» and «Nutrition-and-health» portrays the importance and necessity for pursuing further tests and researches with the help of the *KaziBantu* toolkit.

9. Bibliography

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10. Appendix

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I Chantal Brügger declare that all material presented in this paper is my own work or fully and specifically acknowledged wherever adapted from other sources. I confirm that the presented thesis, or parts of it, have not been presented or submitted in a different university, institution of higher education, seminar or project. I understand that if at any time it is shown that I have significantly misrepresented material presented here, any degree or credits awarded to me on the basis of that material may be revoked. I declare that all statements and information contained herein are true, correct and accurate to the best of my knowledge and belief.

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