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Competing with the tuck shop: How can I influence teenage food choices in this South African high school?

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Abstract

This paper focuses on my personal journey towards finding out how I could influence teenage food choices in the South African high school where I teach. My quest is driven from my values of honesty, integrity and concern about the well-being of my learners. Literature shows that South African teenagers follow global food trends that could lead to the onset of dietary-related diseases such as diabetes later in life. As a consumer studies teacher, I feel that I have a social responsibility to care for the well-being of the learners that I teach. However, I still witness many of my learners regularly eating food that could result in obesity and dietary-related diseases. There are many factors that influence teenage food choices in South Africa today. In this paper, I draw the reader's attention to a trilogy of theories that may underpin contemporary teenage food choices in South Africa. Based on this framework, I conducted research in the school in which I teach to find out how I, as a consumer studies teacher, can influence teenage food choice. I used a methodology of action research to involve twelve learners in a focus group which met on a weekly basis. The research was conducted at two levels: level one was conducted by the learners in the focus group and aimed at finding out what influences the food choice of other learners in the school. Level two focused on my main research question, i.e. how can I influence teenage food choice in this high school? It is the results of this level that are discussed in this article. Data was collected using film which was later transcribed and analysed. In so doing, I turn the camera on myself, and realise that I am a living contradiction to the values that I teach. The findings focus on how I reflected on my practice to develop a living theory as an explanation of my educational influence on the food choices of the teenagers in my school. I invite the reader to join me as I reflect on the path this journey has taken me.²

Keywords: Teenagers; Food Choice; Diabetes; Action Research; Living Theory

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² This research was conducted as part of a masters degree at the school of Mathematics, Science and Technology Education at the Edgewood campus of the University of KwaZulu-Natal in Durban. Déirdre Kroone is the main author of the following article, which was written and edited under the guidance, encouragement and support of her supervisor Busisiwe Alant.

Introduction

My interest in teenage food choices began in 2001 when I started teaching technology education in a South African high school. I gave the grade eight learners in my school a capability task in which they were asked to design and make a healthy breakfast bar. This involved the learners doing some basic research into the daily eating habits and practices of their peers. Year after year, as I repeated this task, I observed a pattern emerging in the eating habits and practices of teenage learners that caused me some concern. Many of the learners were coming to school without breakfast and purchasing items at the tuck shop that were high in macro-nutrients such as carbohydrate, fat and protein, and low in fibre and in micro-nutrients such as vitamins and minerals. In short, the eating habits of many learners did not appear to be very healthy.

It became obvious to me that this type of food intake could cause an increase in dietary and lifestyle-related conditions and diseases such as obesity and diabetes. One of the reasons that I became a teacher was because I thought that I could somehow make a difference in improving the lives of others. I felt that as a consumer studies teacher, I had a particular responsibility for the health and well-being of the learners in my school. Because of this, I decided to conduct research to understand how I, as a consumer studies teacher, can influence teenagers to make healthier food choices.

Nutrition transition

In order to understand the background to my research, I reviewed literature relating to diabetes and teenage food choice both globally and in South Africa. Bourne (1996) first predicted that the current increase in degenerative diseases such as diabetes would accelerate with increased urbanisation and improvements in the socio-economic status of the urban African population. He concluded that this indicated the occurrence of a *nutrition transition* in urban African communities. This transition in the diets of South Africans was further highlighted in research conducted by Cameron (2003). He concluded that diets in post-apartheid South Africa have changed from a low-fat, high-fibre diet of traditional food to a high-fat, low-fibre diet characterised by the habitual intake of what is commonly known as junk food. This nutrition transition could therefore explain the change in contemporary food choices in South Africa.

Global food trends

Cameron (2003) also found that contemporary eating habits in South Africa have followed global food trends of eating highly processed, ready-to-eat food. In many South African schools, this food is purchased from school tuck shops or vendors from the community who sell snacks to the learners at break time. However, this trend towards eating junk food is not only a South African phenomenon. Previous researchers in the field have indicated that junk food is also favoured by most youth in developed countries (Liebman, 1998; Lin, Guthrie & Frazao, 2001; Mullie, Clarys, De Ridder et al., 2006; Warwick, McIlveen & Strugnell, 1999).

One of the problems with eating this type of food is that it is highly processed and therefore the carbohydrate in this food is easily broken down to glucose in the body. This causes a rapid rise in blood sugar levels, which in turn causes a response in the secretion of insulin from the pancreas. The rate at which blood sugar levels rise in response to the digestion of carbohydrate is measured by the glycaemic index (GI). Food is rated according to whether it has a high, medium or low score on this index. If the blood sugar levels rise quickly as a result of eating carbohydrates, that food is given a high GI rating. Food that takes longer to digest does not raise the blood sugar levels quickly and is therefore given a low GI rating. Low GI food sustains energy and concentration levels and prevents over-stimulation of insulin from the pancreas. As a result, eating low GI foods could prevent the onset of diabetes later in life. However, Lin, Guthrie and Frazao (2001) found that even when low GI foods *are* available, there is no guarantee that teenagers will choose these healthier options. This study also suggested that further research needs to be done on motivating teenagers to make healthier food choices.

Teenage food choice

There are many factors that impact on teenage food choice. Adolescence is said to be a critical phase in human development when the child undergoes major physical, psychological, social and behavioural changes (Subratty, Imrit & Jowaheer, 2002). This is also the phase where teenagers go through a crisis of identity as they re-examine old values and choices made in the past (Marcia, 1980). They often reject foods deemed to be healthy by their parents and teachers and choose foods that are seen to be 'cool' among their peers. As a result of this, adolescents frequently develop eating patterns that are unhealthy and may become difficult to change later in life (Davis, 1991; Napier, 2001).

Previous researchers have found that age, sex, socio-economic status, availability of food, participation in family meals and socio-psychological influences are all factors that influence teenage food choice (Bourne, 1996; Gobotswang, 1993; Neumark-Sztainer, Eisenberg, Fulkerson, Story, & Larson, 1999; Story & Neumark-Sztainer, 2002; Warwick, McIlveen & Strugnell, 1999). They can be summarised as follows:

Age

The micro-nutrient quality of food intake is reduced during adolescence (Bourne, 1996). Teenagers also tend to eat fewer family meals than younger children (Lin, Guthrie & Frazao, 2001). In effect, it means that teenagers may not be consuming all the essential vitamins and minerals needed in a balanced diet, as they are making their own food choices unsupervised by parents.

Gender

Teenage boys consume too many foods containing saturated fats, cholesterol and salt (Lin, Guthrie & Frazao, 2001). Although boys tend to be physically active at this age and involved in sports, these nutrients can lead to dietary habits that can result in obesity, coronary heart disease and diabetes. The diets of teenage girls lacked essential minerals such as iron and calcium (Lin, Guthrie & Frazao, 2001). Both these nutrients are essential for growth. Lack of iron in the diet could result in anaemia and reduced ability to concentrate. Lack of calcium can result in osteoporosis later in life. Both iron and calcium are found in protein and dairy foods respectively. Protein and dairy foods are low GI, and consuming them could reduce the impact on blood sugar levels from eating high GI foods. Therefore, the lack of these foods in the diet could increase the risk of diabetes.

Socio-economic status

Gobotswang (1993) recorded that households which had an income of below R1 500 per month consumed a limited variety of foods (Gobotswang, 1993). Neumark-Sztainer et al. (1999) and Warwick et al. (1999) noted that children from wealthier families had access to a wider variety of foods and more fresh fruit and vegetables. Warwick et al. (1999) also found that a negative correlation exists between income and the amount of money spent on junk foods such as fizzy drinks, chips and chocolate. The lower the income, the more junk food was bought. However, this study also noted that as the income of the family increased, so did the temptation to buy fast foods. It would seem, then, that if given the choice, most children will choose foods with high sugar and high fat content over healthier choices, regardless of their socio-economic background.

Urbanisation

Increased intake of macro-nutrients such as fats, refined carbohydrate and animal proteins is associated with increased exposure to urbanisation, whereas the intake of unrefined carbohydrates, fibre and plant proteins decreased with the exposure to Western diets (Bourne, 1996). These nutrients don't pose a risk if eaten in the correct proportions. However, as refined carbohydrates and fat are cheap, tasty and quick to

prepare, more and more people eat a greater proportion of these nutrients in their diet than is considered to be healthy. Overindulgence in these nutrients is termed as over-nutrition, but can exist alongside under-nutrition not only in communities, but also in individual people. The school in which I teach is in an urban community. Most of the learners have television and access to the internet, and hence are exposed to adverts promoting junk foods and fast-food outlets. Therefore they are exposed to Western food trends and eating habits.

Participation in family meals

As previously mentioned, many teenagers do not participate in family meals. This was also seen to have an impact on teenage intake of calcium, fruit and vegetables in the diet, as well as meaning that they missed out on the psychosocial benefits associated with family mealtime. Increased activities outside the home also resulted in an increase in food eaten outside the home (Neumark-Sztainer, Eisenberg, Fulkerson, Story, & Larson, 1999). I suspected that I might find a similar result among my learners, as many of them are involved in extra-curricular activities after school, and do not return home until late in the evening as a result.

Socio-psychological influences

Studies have indicated that both the physical and psychological development that teenagers experience are unique factors affecting the food choices of adolescents (Neumark-Sztainer Eisenberg, Fulkerson, Story, & Larson, 1999; Story & Neumark-Sztainer, 2002). Acceptance and support from peers is vital to the development of self-worth and identity in teenagers (Neumark-Sztainer, Eisenberg, Fulkerson, Story, & Larson, 1999). Teenagers tend to rebel against cultural norms and values in an attempt to establish their own identity (Marcia, 1966; Warwick, McIlveen & Strugnell, 1999). This desire for autonomy may be expressed through rejection of food that is considered to be healthy by parents and teachers (Neumark-Sztainer, Eisenberg, Fulkerson, Story, & Larson, 1999). Hence, a paradox frequently exists between the type of food that learners say they enjoy when at home with their families, and the type of food they choose to eat when with their friends (Stockmeyer, 2001). Many teenagers have expressed a dislike of the type of food served at family meals (Neumark-Sztainer, Eisenberg, Fulkerson, Story, & Larson, 1999). In the case of learners from a rural African background, there is also a stigma attached to eating healthy, traditional food, even when it is free (British Council & South African Agency for Science and Technology Advancement, 2007). Yet, indigenous or traditional African food intake should be encouraged, as it reduces the risk of high blood sugar levels that can result in diabetes (Mbhenyane, 1997).

In a nutshell, the literature reveals that regardless of socio-economic status, both male and female teenagers tend to choose foods that could increase the risk of diabetes. Their choices are strongly influenced by the fact that they are going through a stage of development in which they are seeking independence from parents and forming an independent identity. Teenagers living in an urban community or those exposed to Western eating habits through television and advertising are even more likely to make unhealthy food choices. Thus it can be seen that the reasons for food choice among teens are varied and complex, as more than one of these factors can be at play at the same time. Therefore no one single theory can be used to analyse teenage food choices, as these choices are based on factors that reach beyond teenage consciousness and control.

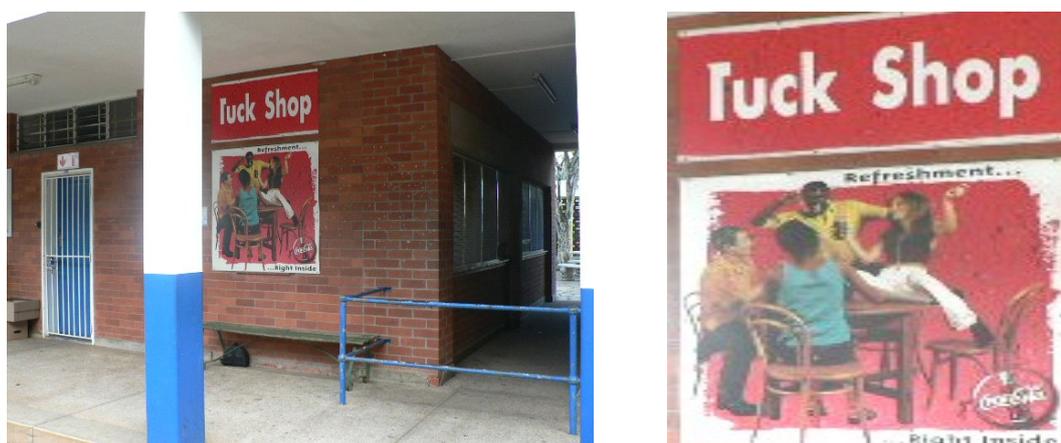
Theoretical framework

Identity theory

In his identity theory, Erikson (1959) states that due to hormonal and physical changes, teenagers reach a crisis of identity in which they are unsure of who they are, and so 'try on' various personas and social images until they find one which 'fits'. Their self-image is based on other people's view of them, in

particular how they are perceived by their peers and social groups. This self-image changes throughout adolescence with exposure to new experiences and societies (Erikson, in Gouws & Kruger, 1994). Gauntlett (2008) states that the media presents teenagers with a popular image of contemporary teenage identity and then advertises products that will associate them with this popular image. Multinational corporations (MNCs) may view the crisis of identity in teenage development identified by Erikson as a weakness that can be exploited for capital gain. They may use this knowledge when branding and marketing products specifically aimed at teenagers. The media therefore plays a major role in socialising adolescents and forming their identity (Irogbe, 2005). Giddens (2009) concurs with this and also states that teenagers frequently become *dependent* on purchasing products and brands that help them to establish a self-identity (Giddens, 2009; Gauntlett, 2008). MNCs create advertisements that present the vulnerable teenagers with role models and images that represent young, attractive, wealthy, popular people using their products. The young people in these advertisements are never seen in the company of their parents, and are often seen in a relaxed, social setting. Therefore, the MNCs have a tremendous ability to manipulate teenagers into adopting the identity and youth culture portrayed in these adverts (Irogbe, 2005). Many of these MNCs sponsor signs in schools in exchange for advertising. Below is one such example in the school where I teach (Image 1). The visual power of this imagery at the entrance to the tuck shop speaks for itself.

Image 1: Advertisement outside the school's tuck shop



Dependency theory

Dependency theorists believe that globalisation serves the interests of wealthy, powerful nations such as America and Britain at the expense of poorer developing countries (Irogbe, 2005). The aim of the MNCs is to generate a profit so that those in control of the companies can become wealthy. In order to achieve this aim, they exploit the weak by creating a culture of dependency on their products (Irogbe, 2005). The MNCs recognise teenagers' need for autonomy and rejection of the values and norms of their childhood, and use this to market unhealthy food and beverage products (Irogbe, 2005). They do not concern themselves with the possible health implications of the foods they are promoting. Their products are widely advertised on television, radio, in newspapers and posters. They even go so far as to promote their products through sponsorship of healthy activities and sports events such as the football World Cup. What young person living in South Africa has not seen or heard the catchy song that clearly states "When I get older, I will be stronger" (K'naan, 2009). Yet the beverages advertised are extremely high in refined carbohydrates which raise blood sugar levels rapidly and could result in obesity, high blood pressure and diabetes in adulthood (Bourne, 1996). In fact, Diabetes SA (2010) states that as many people die from diabetes-related diseases in South Africa as those who die from Aids, and that this can be attributed to the high consumption of refined carbohydrates and sugar in the South African diet.

Although the link between junk food and diet has been established for many years, MNCs are still permitted to continue their expansion into developing countries such as South Africa. Many fast food outlets in South Africa are part of global franchises that are supplied by MNCs. Although they provide much-needed employment opportunities in the communities in which they are established, these outlets make a huge profit for the MNCs that supply them (Irogbe, 2005). The school in which I teach has a large number of fast food establishments within walking distance. Some of the learners purchase from these outlets on the way home from school in the afternoon. Others phone the outlets that have a delivery service and get food delivered directly to the school at break. Whenever I take my learners on a consumer research outing to the local shops, the highlight of the outing for them is to be taken to one of these fast food outlets for lunch. I sometimes think that nothing I teach them about nutrition and healthy food choices has any influence on the choices that they actually make. Psychologically, they could be dependent on the 'cool' image projected by MNCs to give them an identity that is accepted by their peers.

Culture industry theory

Culture industry theory is based on critique of Western capitalist societies and the use of the media as a means of domination and control of the population. Culture industry theorists claim that people who are manipulated by the media are not even aware of their lack of freedom. The needs of the individual or the group are neglected, as material wealth is presented as being the ultimate goal. Fromm (1955) supports this view and maintains that the focus of modern society is to create a market for consumable products. Fromm also maintained that in an industrial (modern) society people lose perspective of who they are as individuals in the formation of a consumer market for industrial products. Therefore, rather than the industrial society catering for *existing* human needs, it identifies and creates needs within individuals through psychological manipulation. Teenagers were first targeted as a separate market for products in the late 1950s (Abrams, 1959). Abrams (1959) declared that "There is distinct teenage spending for distinctive teenage ends in a distinctive teenage world" (p.10). Hence the 'teenage' market was born. Since 1994, South Africa has become part of the global society, and so has become exposed to these international advertising strategies. The more 'developed' a developing country becomes, the more exposure it has to advertising and the popular culture as portrayed by advertising and the media. Most of the learners in the school in which I teach have electricity and television in their homes. Many of them have DSTV which links them with international TV channels and advertisements. Evening prime time viewing includes a lot of advertising of fast foods and junk foods. This allows the media tremendous control over teenage food choice.

In an attempt to understand how these theories may be linked in forming teenage food choice, I have developed the following model³ (Figure 1). The arrows in the diagram demonstrate how these theories influence one another, thus forming links between them.

³ I developed this figure in 2010 and presented it at a conference in Port Elizabeth entitled Action Research: Exploring its transformative potential, held in the Nelson Mandela Metropolitan University (NMMU) from 19–20 August of that same year. Since this figure is central to my explanation of how the theories I have chosen interact with each other and influence teenage food choice, I have used similar versions of it in other presentations and publications. These are listed below.

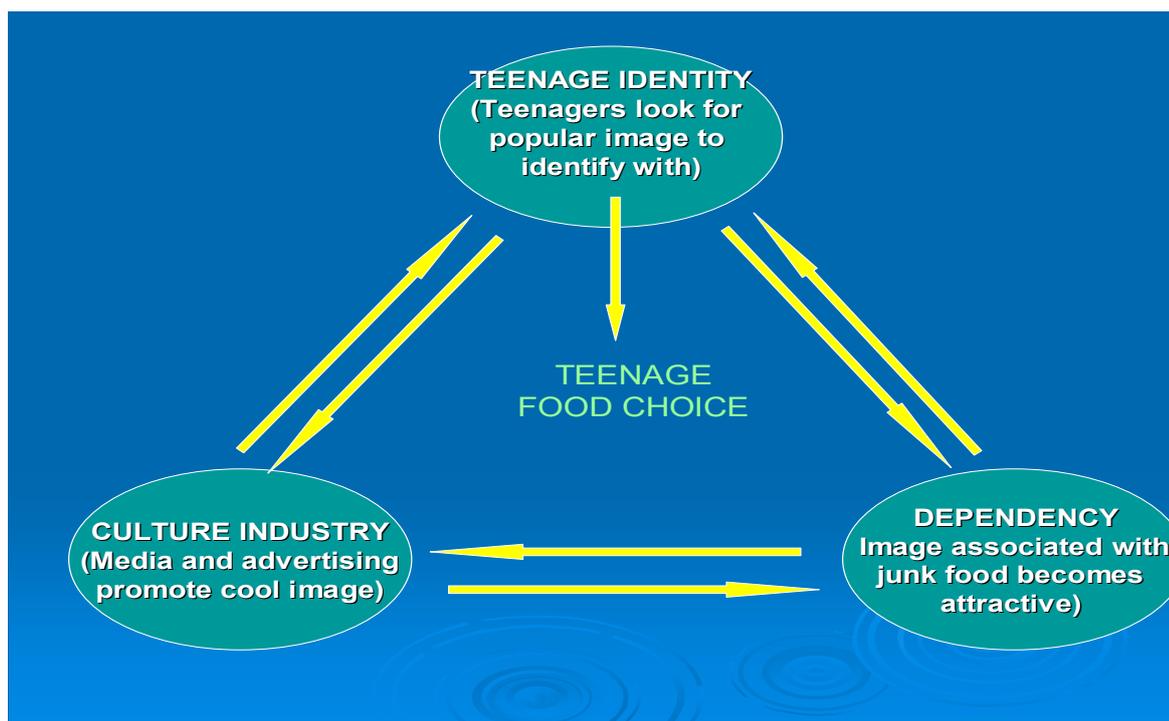
Kroone, D. & Alant, B. (2010). *Taking Control of The Tuckshop: How can we influence teenage perspectives on sustainable nutrition in schools?* Paper presented at the NMMU action research conference, Action Research: Exploring its transformative potential. Nelson Mandela Metropolitan University, Port Elizabeth, South Africa, 19 – 20 August, 2010.

Kroone, D. & Alant, B. (2011). *Development, diet and diabetes: Understanding contemporary influences on teenage food choices in a peri-urban school in South Africa.* Paper presented at the 10th International SAAFECS conference, Building a New Identity. St. George's hotel and conference centre, Pretoria, South Africa, 7 – 11 March, 2010.

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Figure 1: Linking the theories



Intervention

As you can see, the challenges that I face in trying to influence teenage food choices are many. I am one person, up against a global system of capitalism and economically acceptable marketing strategies. This task seems beyond me, and yet I feel that I have to try. Accepting the status quo of the situation goes against my professional educational values of honesty, integrity and promoting the well-being of my learners (Wood, 2009). These values have been a driving force not only in my own life but in trying to improve the lives of others. Yet, is it likely that I can have any influence on teenage food choices in this school? The fact that I may disapprove of overindulgence in junk food products may only add to their appeal. Also, as teenagers desire autonomy in making choices, any effort made by me to change teenage food choices in the school will probably be met by strong opposition from the teenagers themselves. I think it is likely that most teenagers are not aware of the fact that they are being exploited by the MNCs and the media. They are also not aware of the implications that this has for their present and future well-being. At the very least, by trying an intervention, I can try to raise awareness of this problem by pointing out to my learners how they are being targeted and exploited for financial gain.

Methodology

Teenagers know better than adults what products will be acceptable to their peers. They are the experts in deciding what foods are socially and psychologically appropriate for teenagers (Wood, 2009). Based on this thinking, I decided to use action research (AR) to involve the learners themselves in finding ways in which I can influence food choice in this high school.

Action research is based on constructivism, and it became popular in the 1970s and 1980s as a tool for teachers to reflect and improve upon their own practice (McNiff, 2002). Action research is based on critical theory, and aims at revealing social exploitation so that participants can be made aware of the need to make the changes necessary for their own, and each other's well-being (Maree, 2007; McNiff, 2002). In action research, a research study is initiated by the researcher, in this case me, but the participants are involved in the implementation and analysis of the study (Hart, 1999). Through my intervention, I can raise

awareness of the exploitation of the teenagers by the MNCs so that they can then decide if they wish to make changes in their eating habits from an informed and empowered position. This could, in fact, lead to the development of an emancipatory pedagogy for teenage education on food choices (Wood, 2009). The use of AR as a methodology for my research is further supported by the strong focus on the autonomy of the participants (McNiff, 2002). This may appeal to the adolescents' need for autonomy as identified by Erikson (1959) in his identity theory.

Selecting participants

In order to create an awareness and understanding of diabetes, a speaker from Diabetes SA addressed this topic at a school assembly. Learners interested in being involved in the research were then invited to collect application forms from their registrars. These forms included a detailed explanation of the research along with consent forms for both the parents and the learners. The school has a population of over 1,000 learners, of which 59 returned consent forms. From this number, 12 learners were selected to form a focus group. The rest of the volunteers were interviewed by the focus group to find out more about their food choices.

Data collection

The data was collected at two levels, in order to collect two parallel sets of data that could be compared in the analysis (McTaggart, 1989). Level one involved the 12 learners in the focus group as co-researchers collecting data from their peers. At this level I hoped to achieve the first aim of my research, which was to find out what the teenagers in my school were actually eating for lunch. Since my research is based on the theory that teenagers will respond more to their peers than to teachers, this data was collected via daily interviews with other learners. These interviews were based on a simple questionnaire. Disposable cameras were given to the group members so that they could photograph the lunches of their peers. These pictures formed part of the record of the data collected, and were also used to validate the data collected by the group.

At level two the food choices of a group of learners became the subject of the research. Here I hoped to understand the influences on teenage food choices, so that I could find some way in which I could have a positive influence on those food choices. The group met once a week for six weeks, after school for two hours in the afternoon. The times and days of the meetings varied according to the extra-curricular involvement of the twelve learners. These meetings took the form of action-reflection cycles. At each meeting I investigated the learners' attitudes towards different foods, including cultural, low-GI and junk food options. The learners were filmed while making food choices, and then they reflected on the reasons for those choices (Whitehead, 2008). Questions that arose from the reflection helped to guide me towards the focus for the next meeting. Filming the focus group sessions ensured that I did not lose any of the students' facial expressions or comments as they sampled the various foods. Using film also allowed me to focus on the practical task of preparing the food and answering the learners' questions, giving me time for more thorough reflection later. I also observed the learners and took some notes, but found the film to be invaluable since it could be played back repeatedly to observe the learners' food choices and expressions. Using the film also allowed me to leave the room from time to time so that the learners were free to discuss the food without feeling in any way intimidated by me. The learners themselves took this opportunity to speak individually in front of the camera. This was initiated by them; I only discovered it when I watched the video later. This was an excellent way to record each participant's opinions and reactions to the food and to the research itself (McTaggart, 1989).

After eating, there was an informal group discussion on food, food choice, and factors affecting food choices, to allow the learners to reflect on and theorise about their food choices. The purpose was to help them to form an understanding of the relationship between their food choices and diabetes. This was also a

time for informal open discussion on the reasons behind making those particular food choices. These meetings were also recorded for later analysis (see Table 1).

Table 1: Summary of focus group meetings

Session	Title	Purpose	Action	Reflection
1	What's in the lunchbox?	To explore learners' reactions to different foods.	Learners were asked to choose a lunchbox then open it to see what is inside.	Focus group discussed attitudes to different foods and reflected on their own reactions.
2	Healthy food choice?	To understand learners' perceptions of healthy foods.	Learners were asked to bring food in the lunchbox that they considered to be healthy.	Focus group examined food labels for additives, fat and sugar. They discussed their views about healthy foods.
3	Competing with the tuck shop.	To find out if the learners will choose healthy foods over junk foods at the school tuck shop.	Learners were given money to spend at the tuck shop and then they had to comment on their choices.	Focus group reflected the reasons for their choices. Influence of the media, advertising and MNCs were also discussed.
4	Glycaemic Index.	To introduce the learners to the concept of the glycaemic index.	Learners researched the GI index. They had to choose between foods that were high GI and foods that were low GI.	Once again, the focus group reflected on the reasons for their choices.
5	Choosing 'cool' foods.	To understand social factors behind the learners' food choices.	Learners made a list of low-GI foods that may be popular choices in the tuck shop.	Focus group made suggestions on a plan of action to introduce the concept of low GI foods to the school.
6.	Junk food: the healthy alternative.	To explore the learners' reactions to healthier foods.	Learners ate hamburgers that were low fat, high fibre and low GI.	The group discussed the acceptability of a healthy alternative to junk food.

Ethical considerations

Permission to conduct the research was sought and granted by the ethics committee at Edgewood teacher training campus, University of KwaZulu-Natal, and the Department of Education. The principal, as the gatekeeper to the school, also granted permission. A letter of consent was signed by the parents and all of the learners who participated. A letter was also sent to the parents explaining the purpose of the research and what would take place at each of the meetings. The following ethical measures were taken to protect the identity of the learners:

In level one, the identity of the learners was protected by using numbered wristbands placed beside the lunchboxes instead of photographing the learners themselves (see Image 2). This protected individuals from any embarrassment when the lunchboxes were analysed. It also prevented judgments on food based

on racial or gender bias. They were also promised that their faces would also not be visible in the edited video.

Image 2: Example of a lunchbox photographed in level one



In level two the learners were invited to use pseudonyms throughout the filming. They were also promised that their faces would also not be visible in the edited video. They were also told that they were under no obligation to continue with the research if they did not wish to, and that they could withdraw at any time (Maree, 2007).

Findings

As this research contains a vast amount of data, for the purpose of this paper I will only give a brief outline of the main findings. Instead I will focus on an explanation of how I developed a living theory to answer my research question.

Level one

Data from the questionnaire was recorded, and the photos taken with the disposable cameras were compared to the questionnaire results and information on the consent forms. The main aim of this comparison was to validate the results of the questionnaire.

Most of the learners involved in the research brought packed lunches to school. However, as the title of the research was “What’s in the lunchbox?” it is possible that the learners who regularly purchase food from the tuck shop did not take part, as they don’t actually eat from a lunchbox. The lunches of the learners who were interviewed by the focus group were usually prepared by a parent or guardian. Although some of the learners said that the food packed for them was not their first choice, they ate what was packed because they were hungry and had no other option. This demonstrates the importance of parental care even for older children. Although teenagers are capable of preparing their own lunches, many don’t plan ahead of time and run out of time to prepare lunch themselves in the morning.

Almost all of the lunches contained white bread rather than brown or wholewheat bread. Given that white bread has a high GI and is much lower in nutrient value than wholewheat, white bread should not be consumed on a daily basis. However, if a high-GI food item is eaten at the same time as a low-GI food item, the blood sugar levels do not go as high as they do with eating the high-GI food on its own. Furthermore,

the inclusion of any protein or fat in a sandwich will delay the rapid increase of blood sugar levels and lead to more sustainable nutrition. High-GI snacks such as biscuits and sweets were also normally included. Unfortunately, these are the most refined carbohydrates and sugars, and therefore their inclusion in the lunchboxes could have the worst effect on blood sugar levels, besides which the extra kilojoules obtained will increase the risk of obesity.

Level two

The film was transcribed to record all discussions, body language and facial expressions, and the transcripts were scanned for possible themes. The following are the main themes that emerged:

- Junk food is the food of choice among teenagers at school;
- There is a stigma attached to eating left-overs from home;
- Junk food bought from the tuck shop is used to buy some friendships, and to exclude others;
- Being seen eating junk food regularly automatically places teenagers in the 'cool' group;
- Coke is the favourite beverage; and
- The packaging sells the product.

These findings confirm the trilogy of theories which I used to explain teenage food choice in this high school. However, I felt a sense of dismay at the end of the eight weeks when I realised that the teenagers in the focus group were still making unhealthy food choices, despite having being taught about the risks this would pose to their future health.

However, the focus of this article is on what I learnt from a critical analysis of my own influence as an educator. The question of how I – or educators in my position – can influence teenage food choices poses an enigma. At the outset of my empirical research it seemed obvious to me that I merely had to inform the teenage learners about the exploitative tactics of MNCs, and they would be convinced enough to avoid these products. I used a co-researcher with an honours degree in media and communication to film the sessions. However, at times I felt irritated that while he was filming, he turned the camera to focus on me. I kept insisting that he turn the camera away, since the students were the subjects of my research, not I. It wasn't until I was reviewing the film that I realised the importance of my own role in seeking an answer to my research question.

Seeing myself on camera as others see me invoked a variety of emotions. My initial feeling was one of self-consciousness, as this was me in the raw, unstaged and ungroomed for a film in which I so obviously was playing a leading role. This gave way to curiosity, as I watched myself integrate with and motivate the students. Finally, although this was something that I felt I could only admit to myself, I experienced a feeling of intrigue as I became fascinated by the way in which I used my body language and facial expressions as a tool in communicating with the students (Whitehead, 2008). For the first time, in all my years of teaching, I understood how I brought my lessons to life through my passion for teaching.

When I embarked on this research I planned to collect data on teenage food choices in the school. I did not consider that I would be reflecting on my own practice as part of my analysis of the data collected. Even when I had watched the film, I did not see any relevant link between me as a person, and teenage food choice. However, as I reflected on my practice, I came to realise that my role as a teacher in the classroom

could in itself have a major impact on teenage food choice. I was influenced by the work of Jack Whitehead (2008) and his concept of living theory. In Whitehead's (2008) own words:

A living theory is an explanation produced by an individual for their educational influence in their own learning, in the learning of others and in the learning of the social formation in which they live and work (p.104).

According to Whitehead, living theory embodies the values of the teacher and acts as a driving force to precipitate social change. These values stem from a belief and sense of what is right, just and fair in society. They fuel the passion and energy that flows from teachers as they attempt to ignite a similar passion in the students (Whitehead, 2008). By using Whitehead's living theory approach to analyse my own role in my research, I have learnt things about myself that enable me to reflect on my own teaching practice, with a view to improving that practice for the benefit of the learners' well-being.

I found that my emphasis on important points, my facial expressions and my somewhat exaggerated body language all added to the impact of my words. I exuded passion as I taught the learners about the value of choosing low-GI foods. Below is a link to a video clip taken during one of the focus group meetings in which I am explaining to the learners the effect that high-GI foods have on blood sugar levels (see Video 1). I hope that you can see that the life-flowing energy that I emit is testimony to my concern about the risk of diabetes to my learners (Whitehead, 2008).

Video 1: How high GI foods affect blood sugar levels

<http://www.youtube.com/watch?v=bZe-6anJfEk>

The use of this video clip allows you as the reader to see the energy that flows from me as I try to explain to the learners the importance of eating low-GI food.

Yet I am a fake. I speak of values that are important to me, expecting that my students will follow my example. When the camera turns on me, I see a *living contradiction* with the values that I teach (Whitehead, 2008; McNiff, 2008). My eating habits have become erratic. I do not take regular exercise. I regularly indulge in foods that I know are not good for my well-being (I have eaten more chocolate in the past three years than in the preceding 20). In fact, the irony of conducting research into teenage food choice has left me with a weight gain of over 20 kg. I have become what I do not want my students to be: a high risk for chronic dietary-related conditions such as diabetes, high blood pressure and heart disease. Below is a link to a video which bears testimony to this (see Video 2). The audio recording was made during one of the focus group sessions. I am clearly advising the learners about making healthy food choices and exercising to avoid the onset of diabetes, yet my physical appearance tells a story of a person who could be at high risk of developing diabetes herself.

Video 2: Me as a living contradiction

<http://www.youtube.com/watch?v=FXHjajhNQDU>

I ask myself again: How can I influence teenage food choice, especially as I do not practice what I preach? In order for action researchers to be taken seriously, everything that they do and say inside and outside the classroom must reflect their values (Wood, 2009). If I claim to value honesty, integrity and the well-being of my learners, then am I being honest when I tell them that I make healthy food choices? Does my

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appearance stand as a testimony to my integrity as an advocator of healthy food choices? How can I claim to be concerned about my learners' well-being when I appear to be unconcerned about my own? Perhaps, in order to engage the learners in my school in making healthy food choices, I need to demonstrate that I value my own well-being as much as I want them to value theirs.

This values-based self-reflection is cutting, but necessary if I am to improve my approach to teaching and advising learners about healthy food choices (McNiff & Whitehead, 2006). Additionally, seeing myself as a living contradiction to the values that I believe in helps me to empathise with and understand the lived reality of the learners when making their own food choices (Whitehead, 2008; Wood, 2009). Furthermore, the humiliation of posting video clips on the internet attesting to the reality of my weight gain and inviting public critique should add validity to my claims that I value honesty and integrity. Even you, as the reader, may feel somewhat uncomfortable with my self-criticism. However, I have rechannelled the negative, potentially destructive emotions that I feel when watching myself on video into a flow of life affirming energy in my teaching (Whitehead, 2008). Finally, by sharing my struggle and quest with my learners I may influence their thinking in such a way that they question and critique their own food choices as a result. The third video link below was taken from a recording during the fourth focus group meeting (see Video 3). In this recording, one of the learners critiques the role of the media and how it influences teenage food choice.

Video 3: Learner's critique of the role of the media in teenage food choice.

<http://www.youtube.com/watch?v=IR5PWB9keDk>

It is obvious that this learner has been reflecting on what I have taught him about global influences on teenage food choices, and as a result has become what I wanted him to be: a critical consumer of junk foods. The energy, the passion and the values which I tried to convey during the focus group sessions flowed through to him in a way that taught him to view junk food in a different way. The seed of discontent has been sown in his mind. This video clip adds validity to my claim that by reflecting and theorising on my practice, I have developed a living theory to explain how I can influence teenage food choice in this South African high school (Whitehead, 2009). In the words of McNiff, "The idea of living an educational theory ... is important ... as a person is able to engage critically with their own thinking, and seek to influence the thinking of others in an educational way, a way that nurtures further learning." (McNiff, 2008, p.1)

This then, answers my research question: how can I influence teenage food choice in this South African High school? I offer this living theory that I have generated as an answer to this enigma. As an individual, I cannot compete with or change the current social order or the powerful psychological attraction of teenagers to junk food. My own theoretical framework can therefore only offer an explanation of these powerful influences on teenage food choice in general, and of my influences on my own learners (Whitehead, 2008).

Implications

The results of this study show the importance of reflecting on my practice in order to generate a living theory as an explanation of my influence of teenage food choices. The inclusion of group discussions on global influences on teenage food choice is an important part in nutrition education. Through these discussions the learners develop the skills to become critical consumers of junk food. This in turn can lead them to reflect on their own values and food choices. In so doing, they are empowered to choose foods that will maintain blood sugar levels and reduce the risk of developing lifestyle diseases such as diabetes. By sharing my own values with them, and the cognitive dissonance I experience as I realise that I am not

living them out, I can also help them to interrogate their values around healthy eating and if they are making choices appropriate to them.

Jansen (2010) wrote that he is “prepared to bet that there is a [positive] relationship between the body language of a teacher and the performance levels of her learners”. The significance of body language and facial expressions as a means of influencing learning should therefore be stressed as an important point in teacher training.

Some of the learners in the focus group are members of the Representative Council of Learners (RCL) in the school. As the RCL already has a good system of communication with the learners, this may be the perfect springboard from which to launch the message of healthy food choice and diabetes prevention to the rest of the school learner body. This would also give all of the learners in the school some autonomy when deciding on healthy alternatives to junk foods for the school tuck shop. Some of these learners have responded positively and through the RCL have taken up the challenge to change attitudes towards healthier food choices in the school. As part of the school management team, I have written a policy document for the school tuck shop based on the results of this research. If implemented, this could influence teenage food choice in this high school. If we succeed, perhaps this model can be adopted in other South African high schools. Therefore, there is scope for further research to be conducted on influencing teenage food choices in South Africa.

Conclusion

I began the story of my journey with my concern about the food choices of my learners. Literature led me to the fact that in the past twenty years there has been an increase in the number of people with diabetes in Southern Africa. I sought to understand this by using a trilogy of theories that work together to underpin teenage food choice. As a Consumer Studies teacher, I recognised that I have a social responsibility towards the well-being of my learners. This motivated me to ask, “How can I influence the food choices of the teenagers in this South African high school?” To find an answer to this problem, I embarked on empirical research in the school in which I teach. I used a methodology of action research to involve twelve of the learners from the school in a focus group. Film was used to capture data during weekly sessions.

The results show that the theoretical framework that I applied could be used to explain global influences on teenage food choice. The passion I displayed while teaching flowed through to the learners in the focus group, enabling them to become critical consumers of ‘junk’ foods and the marketing tactics of MNCs. This resulted in some of the learners in the RCL actively trying to change attitudes towards healthy food in the school. However, although the body language I used during my teaching expressed my values of honesty, integrity and concern for the well-being of my learners, on reflection I became aware that I am a living contradiction of the values that I teach. Perhaps, then, my physical appearance should attest to my belief in making healthy food choices so as to prevent diabetes. This realisation has helped me to see how I, myself, should be making healthier food choices if I want the learners to follow suit. In so doing, I have developed a living theory to explain how I can influence teenage learners to make healthier food choices in this school.

Note

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