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CHILD CONSUMERS' PERCEPTION OF COLOUR AND GRAPHICS IN CEREAL BOX PACKAGING DESIGN

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(B. CONSUMER SCIENCES)

Mini dissertation submitted in partial fulfilment of the requirement for the degree Magister in Consumer Sciences at the North-West University

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CHAPTER 1

INTRODUCTION

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1. INTRODUCTION

1.1 BACKGROUND AND MOTIVATION

In a modern consumer society, children are socialised from an early age to become responsible child consumers. This responsibility is seen in children as young as five years of age who increasingly make independent purchases (Valkenburg & Janssen, 1999:3). More specifically children consumers show certain characteristics that make them active in the consumer purchasing environment. For one, they are said to have become more aware of brands than their parents (Dotson & Hyatt, 2000:223). Furthermore, in the last seven years, their income has doubled and their spending has almost tripled, they have become inclined to compare prices, they also prefer certain brand names and are highly influenced by the power of product advertisements which have an effect on their decision-making behaviour and selection process of consumer goods (Dotson & Hyatt, 2000:220; Őzgen, 2003:366; McNeal & Yeh, 2003:543). This points to the fact that children are able to show signs of early consumer purchasing behaviour and decision-making processes that relate to being a consumer of an early age.

Perhaps the most significant issue in a child consumer's purchasing behaviour is the growing influence children have on their parents' shopping behaviour (Wilson & Wood, 2004:329; Pettersson *et al.*, 2004:318; Őzgen, 2003:366; Valkenburg & Cantorb, 2001:68). In this instance the child's behaviour results in independent choices, forced purchases and an authoritative consumer presence. Clearly, marketers can no longer ignore the growing importance of these young and independent consumers. It is, however, uncertain what the current position of the child consumers in South Africa is in relation to their importance as an independent consumer segment.

A question raised is how marketers reach this emerging segment of consumers. In this regard, packaging (with specific reference to the graphics and colours used as extrinsic product attributes) can be highlighted as a significant means of influencing these young consumers. As explained by McNeal and Ji (1999:349), children respond better to colour and graphics due to their limited reasoning abilities and inability to read. It could therefore be argued that if child consumers preferred colour and graphics applied to the packaging of products, specifically aimed at the children's market, their behaviour as consumers could be predicted to some extent. This would ensure that the product is bought by the child consumer at whom the product was targeted.

In general, colour is considered a primary communicator of the intended message of packaging and is used to maximise attention (Gorn *et al.*, 1997:1387). As pointed out by Grimes and Doole (1998:799), colour, once part of the complex area of psychology, took its place as one of the most powerful ways to take products further than merely the promotion of tangible, functional and salient benefits and into the mystical dominion of emotion, perception and image. Furthermore Bradley *et al.* (*in* Bywaters *et al.*, 2004:480) found that better encoded long-term memory could be assured with extremely pleasant or unpleasant stimuli and highly arousing stimuli such as colour. Subsequently, colour is a powerful medium through which the child consumer can be influenced and persuaded into purchases of a particular product targeted at the child consumer.

In addition to colour, another medium which has similar potential is the use of graphics in packaging design. Hill (2002:770) is of the opinion that in particular the use of cartoon and animal characters act as an attractive medium to catch the attention of children consumers. This attraction may also be found in the association that the child consumer has with different graphical characters as illustrated by Acuff and Reiher (1997:160). These characters may be divided into specific categories that range from a nurturing quality to 'disidentification' with the character (Acuff & Reiher, 1997:160). The influence that such graphical categories of characters have on the child consumer may also be considered an important instigating factor in child consumers' purchasing and decision making.

Specifically in relation to colour and graphics of child consumers' behaviour, Piaget's (1952:245) work on cognitive development is aimed at understanding the dynamics of a

child's perception of colour and graphics. The interest is especially in understanding the child's perceptual process is the preoperational stage of cognitive development in Piaget's (1952:245) theory, where children are between the ages of two to seven years. In the preoperational stage, children are characterized by the tendency to focus on a single stimulus, for example the stimuli found in the colour and graphics of packaging. These stimuli act as a binding mechanism in the child's environment, which is captured through the perception of the child (Piaget, 1952:245). Such a stimulus might be the only meaningful interpretation the child consumer is able to make as other grammatical skills have not yet been developed through which communication could take place.

In adopting Piaget's (1952:245) approach to children's perception of stimuli brought on by aspects such as colour and graphics, it is possible to study the way in which children in the preoperational stage of cognitive development perceive the colour and graphics in packaging design. Perception is a vehicle through which the meaning that a consumer attaches to a specific stimulus, such as colour and graphics, could be determined (Du Plessis & Rousseau, 2003:218; Solomon, 2004:325). In particular, preferences form one dimension of the perceptual process that can be used to understand the meaning a consumer attaches to the above-mentioned stimulus (Du Plessis & Rousseau, 2003:218). These preferences are formed through the selection process a consumer applies during the process of perception, which in the case of colour and graphics may be considered as external attributes of the product which the consumer perceives (Du Plessis & Rouseau, 2003:218).

One of the best among the available products, through which a better understanding of the perceptual preference process of colour and graphics in packaging design can be reached, is the cereal box. Cereal boxes, in particular, are known for the use of bright, colourful packaging, which often depicts popular cartoon characters. Furthermore, cereal is a widely acclaimed children's product (Wilson & Wood, 2004:330; Dotson & Hyatt, 2000:224) of which a broad variety is available on the shelves of South African grocery retail outlets. Through studying the perceptions of the child consumer regarding cereal box packaging design in relation to colour and graphics, a better understanding can be reached of the factors that influence child consumers' preferences for specific products.

1.2 PROBLEM STATEMENT

The importance of studying the perceptual preferences of children as consumers has not yet been realised in a South African context. This is evident from the lack of research in this area. Research indicates that studies related to the child consumer have focused on nutrition rather than consumer behaviour (De Villiers, 2000:145; Kruger & Gericke, 2001:60; Rojhani & Niewiadomska, 2004:116; Kruger & Gericke, 2004:36). This highlights the importance of studying the child as a consumer in the South African context. It has previously been stated in numerous children consumer studies in an international context, that this consumer segment is growing and that it has a particular stature in the consumer market. There are indications of a lack of investigations into the perceptual selection processes and resulting preferences of child consumers in a South African context.

The aim of the study is consequently, focused on child consumers' perceptual preferences towards the colour and graphics in cereal packaging design. Research conducted in countries other than South Africa provides compelling evidence that such extrinsic product attributes such as colour and graphics have a definite impact on children's recollection of the most significant product attributes a child consumer perceives (Hill, 2002:770). It could therefore be argued that the child consumer may have a particular preference for these two very important extrinsic product attributes that products offer.

As such, the extent to which young South African children are influenced by these aspects in their selection of, and preference for products, is debatable. Moreover, the impact of graphics (including pictures) and colour used in the packaging of children's products, such as cereal, is not clear. Based on these arguments this research project is driven by the question of whether seven-year-old child consumers have definite colour and graphical perceptual preferences regarding the packaging design of cereal boxes.

1.3 AIM AND OBJECTIVES

1.3.1 Aim

The main aim of this study was focused on determining whether seven-year-old children consumers have specific perceptual preferences regarding the colour and graphical design of cereal box packaging.

1.3.2 Objectives

In order to achieve the aim of this study the following objectives were identified:

- To determine the association of seven-year-old children regarding colour and graphics of cereal box packaging design by exploring
    - the perceptually preferred colours in cereal box packaging design; and
    - the perceptually preferred graphics in cereal box packaging design.

- To determine the conceptualisation of seven-year-old children regarding colour and graphics of cereal box packaging design through the composition of an ideal cereal box.

1.4 STRUCTURE OF THE MINI-DISSERTATION

This mini-dissertation is presented in an article format. Chapter 1 provides a brief background and motivation. In Chapter 2 the sampling and research methods as well as the data analysis techniques are described. Chapter 3 is presented in article form and provides an in-depth discussion of the results of the research. The references and reference lists included in Chapter 3 were done according to the editorial prescriptions of the Journal of Retailing (included in Appendix G). A conclusion to the study is provided in Chapter 4, which also includes possible applications of the results and recommendations for future research.

1.5 AUTHORS' CONTRIBUTIONS

The study reported in this mini-dissertation was planned and executed by a team of researchers. The contribution of each researcher is given in the following table:

Table 1: Authors' contributions

Name	Role in the study
Ms S.D. VISSER	Author, responsible for literature research, the gathering and interpretation of data, descriptive analysis and the preparation of this mini-dissertation.
DR. E.L. KEMPEN Ms N.C. SONNENBERG	Study leaders and co-authors, supervising descriptive analysis and interpretation of the data as well as the completion of this mini-dissertation. Also assisted in organising sponsorships and funds to make the study possible.

The following is a statement from the co-authors confirming their individual role in the study and giving their permission that the articles may form part of this mini-dissertation.

I declare that I have approved the articles included in this mini-dissertation, that my role in the study, as indicated above, is representative of my actual contribution and that I hereby give my consent that it may be published as part of the Masters' mini-dissertation of Ms S.D. Visser.

Dr E.L. Kempen

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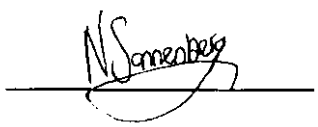

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CHAPTER 2

RESEARCH METHODOLOGY

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2.1 INTRODUCTION

In order to determine South African child consumers' perceptual preferences of colour and graphics in cereal box packaging, also referred to as cereal box design, it is necessary to establish an appropriate methodology with which to explore the research topic. Therefore this chapter will argue the importance of adopting an in-depth qualitative research approach of a descriptive and exploratory nature with which to investigate the aim of this study. Furthermore the aim of this chapter is to provide a detailed explanation of the sampling strategy applied, as well as the importance of ethical considerations in dealing with children as research participants. The chapter also discusses the unique and innovative research methods used to generate the data and the qualitative analysis method applied to analyse the data. A brief discussion of the strategies applied to ensure trustworthiness of data gathering as well as analysis will be presented.

2.2 RESEARCH APPROACH

In order to gain a thorough understanding of a research topic Ruane (2005:12) and Fouche (2002: 270) propose a qualitative design. Therefore this design was followed to determine the child consumer's perceptual preferences regarding cereal box design. According to Henning *et al.* (2004:3) qualitative research provides natural development and freedom of information provided by the participants. These qualities of qualitative research are especially beneficial when working with a sample of children as they are then granted the opportunity to give their opinion and reasoning behind their actions more freely and without being inhibited. This specific approach also displays elements of an in-depth exploratory study, to generate new insight into the child's behaviour, as consumer in this specific field, that could lead to the development of new concepts and theories (Delport & Fouche, 2002:357; Ruane, 2005:12), as well as elements of a descriptive approach providing a detailed picture of this phenomenon (Ruane, 2005:12).

2.3 RESEARCH SAMPLE

In order to execute the qualitative research design particular attention was paid to the sampling method used for this study. This is supported by Strydom and Delport (2002:334) who argue that it is of cardinal importance to clearly identify and formulate the criteria for the selection of participants during qualitative research. By following these criteria the researcher is ensured of selecting the appropriate participants for the study. This was executed by determining the study location, the study population and the appropriate sampling technique through which the target sample of child participants were identified.

2.3.1 Study location

The study was conducted in Potchefstroom in the North-West Province. Primary schools in the near vicinity of the North-West University campus were approached to take part in the study. These schools provided child consumers of the most dominant ethnic groups in the Potchefstroom district.

2.3.2 Study population

Children between the ages of six and seven were identified as the major participants for the study in the perceptual preferences of colour and graphics in packaging. These children that are not yet able to read and write are in the preoperational stage of development (Piaget, 1952:245; Louw *et al.*, 1998:7). Therefore the major focus of this study was the perceptual effects of the colour and graphics on child consumers of this age group.

2.3.3 Sampling

In order to select schools from the study location and a study sample of child participants from the study population a non-probability sampling approach was adopted (Strydom & Delport, 2002:334). According to Sarantakos (2000:154), sampling in qualitative research is less structured and less strictly applied than in quantitative research, thus, conforming to the non-probability sampling qualities.

2.3.3.1 Sampling method for the primary schools

The non-probability sampling approach used to select the primary schools in Potchefstroom was based on a convenience sampling procedure (Ruane, 2005:116). Therefore this method enabled the researcher to include the primary schools that were most conveniently located in relation to the university (Ruane, 2005:116). The convenience sampling procedure was applied at which point four primary schools were identified that adhered to the following convenience criteria: the schools needed to be in close proximity of the North-West University, these schools needed to include the dominant ethnic groups in Potchefstroom and had to give consent to take part in the study. Meetings were scheduled with the principals of the identified Primary schools to explain the purpose and objectives of the study and to request their co-operation. All the principals of these schools agreed to assist the researcher in the study and to provide a suitable venue for the study to be conducted in.

2.3.3.2 Sampling method for the primary school children

The sampling method used to select the child participants from the primary schools identified, was based on a purposive sampling procedure. According to Strydom and Delport (2002:334) clear identifications and formulation of criteria for the participants to meet are of cardinal importance to ensure that the correct data can be obtained.

The purposive sampling procedure was applied to include the following: children between the ages of six to seven years, an equal number of boys and girls, in which case five boys and five girls were identified from each participating primary school, children able to speak either Afrikaans or English and part of the different ethnic groups represented within the six to seven year age group in the school. This sampling procedure identified 20 boys and 20 girls of different ethnic groups as the study participants.

2.4 ETHICAL APPROVAL

According to Babbie (2001:470) anyone in research needs to be aware of the general agreements about what is proper and improper in research, especially when studying children. Congress and Lynn (1994:135) stress the fact that participants must be legally and psychologically competent. Children are not considered legally or psychologically

competent to provide consent, consequently their legal guardians need to be approached (Ruane, 2005:18). Informed consent by means of a letter addressed to the guardian of the six- to seven-year-old children was obtained (see appendix A). This letter provided adequate information about the purpose and intent of the investigation as well as the procedures to be followed during the investigation. The procedure followed in this study, namely to obtain consent and inform guardians when using young children in research studies, is supported by Strydom, (2002:65) and Ruane, (2005:18).

A large number of consent forms were handed out to six- and seven-year-old learners (included in Appendix A). These consent forms informed the parents about the nature and purpose of the study. Consent forms returned, indicating the parents' formal consent to their child's participation in the study. These forms were screened according to the set criteria, mentioned above. Individual appointments were made with these participants in collaboration with the teachers and principals resulting in the 21 boys and 21 girls used in the study.

The letter also notified guardians of the use of audio recorders and their right to see the transcribed script at any given time. Ruane (2005:19) suggests that when working with children as participants the researcher must see to it that the guardians are assured that participation of their child in the study is voluntary, and that their child could withdraw from the interview at any point in time if they should choose to do so. Confidentiality as well as anonymity would be assured; hence information given by participants will not be linked to the children and made public (Ruane, 2005:25). Discretion was used with all information and details obtained throughout the study. Furthermore Strydom (2002:65) and Ruane (2005:23) suggest that each participant needs to be informed of the expectations the researcher sets during the session and that he/she should feel free to comment in any form that feels comfortable. Therefore, for this specific study, ethical approval from the North-West University ethical board was obtained and registered as project 04K11.

2.5 PILOT STUDY

Before data collection could take place a pilot study was undertaken to determine whether the research approach would be suitable for this particular study. Therefore the first two data collection sessions with child participants from the first primary school, participating in the study were used to form the pilot study. According to Strydom and Delport (2002:337) the advantage of conducting a pilot study is found in the fact that a pilot study can serve to test certain questions, especially the appropriateness of the wording. In this particular study where child participants were concerned, appropriate wording and clear instructions were necessary in order to successfully obtain information and complete all activities.

McNeal (1999:237) warns that the researcher stands to lose the meaning of what is communicated to the children when inappropriate wording of questions are used. Subsequently the second important aspect related to a study with child participants is to establish effective communication. The researcher's instructions must be understood and successfully completed. Strydom and Delport (2002:337) suggest that a pilot study offers the researcher the opportunity to establish whether effective communication has taken place. In particular this study requires that instructions are clear and understood. According to McNeal (1999:239) the researcher should communicate in a simple yet short manner during which language is used that the child participant could easily understand and relate to.

Furthermore the pilot study also provided the researcher with an opportunity to gain confidence and experience in working with children. It allowed the researcher to become more secure in the sequence of activities as well as the way in which the child participants needed to be approached in order to execute the instructions successfully. The pilot study also showed the researcher the importance of allowing the child participants to complete the activities in their own time and not to feel pressured in doing so. Strydom (2002: 219) suggests that practical experience such as this is valuable in creating a better understanding of the complexities of the participants.

The pilot study also proved helpful in determining the effectiveness of each instrument intended to be used in this study. Strydom (2002:216) argues that the pilot study is able

to indicate to the researcher whether a certain instrument is applicable and shows clear intension of generating adequate data. Subsequently a projective technique whereby child participants were asked to evaluate a photograph of an in store cereal box shelf was found to be ineffective in producing meaningful data. Based on these findings from the pilot study this instrument was eliminated from the main study. Furthermore the other projective techniques used in conjunction with a semi-structured interviewing technique were found to be beneficial in data collection.

2.6 MAIN STUDY

After completion of the pilot study the main study took place, during which identical procedures were followed as in the pilot study. The main study took place during May 2005 and June 2005.

2.7 DATA COLLECTION

The limited amount of research on child consumers in a South African context demanded an in-depth research approach, resulting in qualitative data collection methods such as semi-structured interviews with various projective techniques with which to probe the participants for further opinions and ideas. The fact that the children had limited reading and writing abilities, contributed to the motivation for the use of data-collection techniques that mostly involved verbal communication. The verbal communication was supported by the use of visual aids that could substantiate ideas and opinions expressed by the child participants.

2.7.1 Data collection venue

Data collection took place in an available venue provided by principals of the participating schools. McNeal (1999:238) points out that the most important variable to keep in mind is the participants' comfort and familiarity with their surroundings to overcome shyness. Subsequently, this environment provided the most appropriate setting for the researcher to conduct the research.

2.7.2 Data collection procedure

In order for data collection to take place the researcher followed a particular procedure. This included finalising appropriate times during which the child participants could be made available for data collection. The data collection was mainly conducted during the mornings of the school semester from 9 May 2005 to 30 May 2005 and 20 June 2005 to 22 June 2005. The sessions of data collections varied between thirty minutes to an hour allowing for each child participant to complete the data collection activities in his/her own time.

On the day of data collection the child participant of which a consent form was obtained was fetched by the researcher in class. The child was then escorted to the venue where the data collection took place. When the child participant was comfortable the researcher informed the participant of different activities that the participant would be completing while he/she was with the researcher. After completion of the data collection session, each child participant received a small token of appreciation and was escorted back to class.

2.7.3 Data collection instruments

Child participants need special consideration when empirical methods are evaluated as this could influence the depth of information obtained from the children. One of the considerations to be made is whether children are able to understand and execute the instructions given to them. In order to achieve this McNeal (1999:223) is of the opinion that the research methods should be age-graded for both chronological age and level of maturity. This points to the inclusion of instruments that are appropriate for the specific age group with which they can associate, are easy for the children participants to complete and pose no threat by being unfamiliar to them. Two data collection instruments that proved to contain all the age-graded qualities whereby seven-year-old childrens' perceptions of the colour and graphical design on cereal boxes could be determined, included the application of projective techniques which were supported by semi-structured interviews.

2.7.3.1 Projective techniques

McNeal (1992: 236) argues in support of the use of projective techniques where child participants are involved, claiming that almost two thirds of all stimuli reach the human brain through the visual system of which this percentage in children is even higher. Therefore McNeal (1999:236) suggests that research with child participants should make use of pictures as frequently as possible, because pictures would stimulate the participants in a manner that would allow the children to express themselves more accurately, while also engaging children's interest more effectively (McNeal, 1999:236). As a result, this study made use of projective techniques which included colourful and stimulating visuals in the form of graphical cartoon characters, coloured cereal boxes without graphical designs and coloured cards.

Furthermore one of the biggest challenges for a researcher when child participants are involved is to overcome the 'no response' error. According to McNeal (1999:238) this error occurs because half of children between the ages of 5 and 10 will be shy, in conjunction with the fact that they usually feel intimidated by unknown adults. In order to overcome the 'no response' error Gunter and Furnham (1998:158) suggest the use of projective techniques, as these techniques assist the children in their possible inability to express themselves verbally. Therefore projective techniques were found to be a suitable data collection method.

In this study two projective techniques, namely association tests as well as a conceptualisation test, were identified. These techniques made a better understanding of child consumers' perception of the colour and graphical design of cereal boxes possible.

- **Association test**

According to Oppenheim (1999:212) an association test, is guided by the assumption that the participant will give a fast unguarded response to the given stimuli. The study on the perceptual preferences of seven-year-old child consumers made use of two different association tests.

Mock cereal box colour shelf association test

The first test was a mock cereal box colour shelf presented to the child participants in which case they were asked to associate their favourite colour with a cereal box. Eight plain coloured mock cereal boxes with dimensions particular of cereal boxes found in

store were used (see figure 1). The colours of these mock cereal boxes used in the study were narrowed down to include only those presently used on cereal box designs exclusively aimed at the children's market. Furthermore, only cereal box colours freely available in the Potchefstroom regional stores were included in the mock cereal box colour shelves. Therefore the three primary and the secondary colours together with brown and pink were used, such as red, orange, yellow, pink, purple, green, blue and brown. Seen in the light that this is a basic qualitative study, aimed at opening this unknown research field in a South African context, the primary and secondary colours, as the most basic colours, are ideal as a beginning (Ambrose & Harris, 2005:111). Pink was included as a seventh colour, mainly to test the relevance of gender stereotyping, namely blue is for boys and pink for girls (Pomerleau *et al.,* 1990:359). Brown was included to determine whether this colour would be associated with chocolate from a child's perspective, as generally assumed by the food industry (Oram *et al.,* 1995:239).

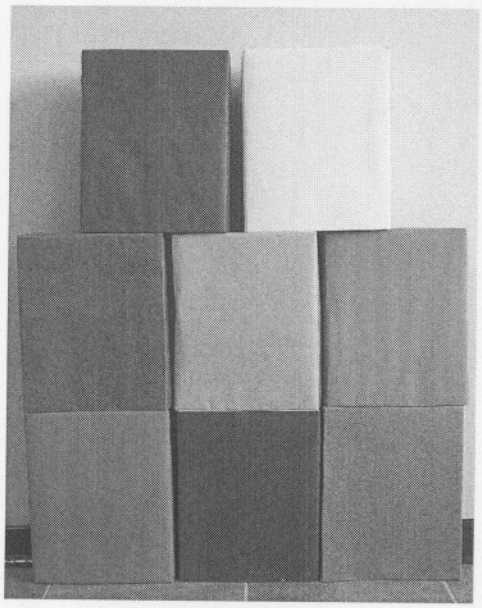

Figure 1: Illustration of the mock cereal box colour shelf association test

Mock cereal box graphic shelf association test

The second association test was the mock cereal box graphic shelf (see figure 2). This shelf contained twenty white mock cereal boxes each with different graphic characters. Due to the vast variety of graphic characters available certain guidelines were needed to direct the choice of graphic characters included in the study. According to Acuff and Reiher (1997:169) children aged six to seven years are more sophisticated in their

graphic character preferences, wanting graphic characters with more complex properties, such as humour or inhuman abilities. They expand on the idea by dividing available graphic characters into four groups according to the way that children relate to them (Acuff & Reiher, 1997:160).

Figure 2: Illustration of the mock cereal box graphic shelf association test

The first category is a "nurturing" graphic category (see figure 3). This category includes graphical characters showing a cultivating and nurturing quality. Examples of such graphic characters are Lion King, Cinderella, Little Mermaid and Barbie. This contemporary graphic character shows similar qualities of a character that could be nurtured by the child.

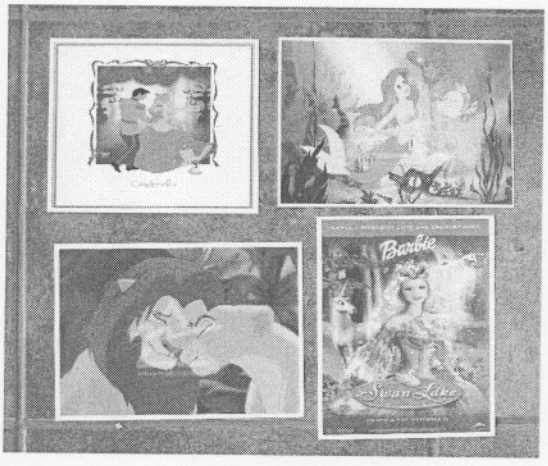

Figure 3: Graphical characters included in the category 'nurturing'

The next category is the "like me" graphic category (see figure 4). This category includes graphical characters that have some qualities or attributes that the child identifies with, such as being humorous. Examples of these characters that were included in the study are, Nemo, Sponge Bob, Robots and the contemporary character Shrek, who exhibits humorous characteristics with which the child can associate him-/herself.

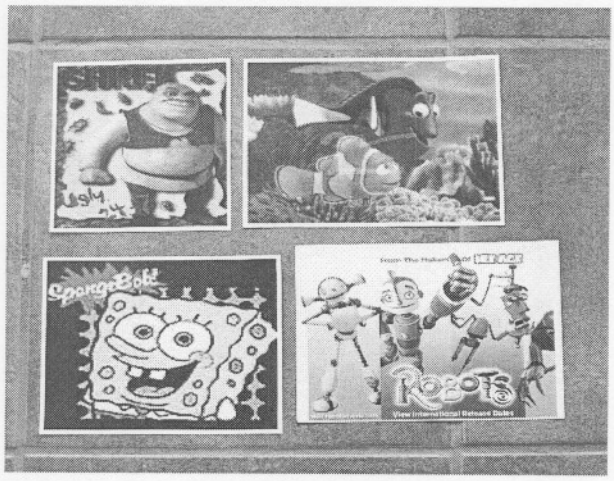

Figure 4: Graphical characters included in the category 'like me'

The third category is the "emulation" graphic category, which includes sports personalities that children admire and aspire to (see figure 5). This category is represented by graphics of, for example, well known tennis and rugby players, pop stars, actors and actresses and many other associated figures. The graphic characters used in this study were more related to contemporary sport heroes.

Figure 5: Graphical characters included in the category 'emulation'

The last category is the "disidentification" graphic category (see figure 6). This category consists of graphic characters that have dark and violent qualities to them. In this study Matrix, Robin, Catwoman and Electra were included to represent the disidentification graphic category.

Figure 6: Graphical characters included in the category 'disidentification'

In addition to Acuff and Reiher's (1997:160) four basic graphic categories, another graphic category was added that represented the well known cereal box graphics found on contemporary boxes (see figure 7). This category included graphics such as Cocopops, Froot Loops, Rice Krispies and Frosties. These graphic characters were also found in the Potchefstroom regional stores and well associated with children cereal box brands.

Figure 7: Graphical characters included as well-known cereal box graphical characters

The graphical characters associated with Acuff and Reiher's (1997:160) graphical categories as well as the graphical characters associated with the cereal box brand category, as used in this study, are summarised in Table one.

Table 1: Summary of graphic characters in each graphic category used in the study of the perceptual preferences of seven-year-old child consumers

CATEGORIES				
Nurturing	Little Mermaid	Barbie	Cinderella	Lion King
Like me	Nemo	Shrek	Sponge Bob	Robots
Emulation	Tennis	Cricket	Rugby	Soccer
Disidentification	Matrix	Robin	Catwoman	Elektra
Cereal graphics	Cocopops	Froot Loops	Rice Krispies	Frosties

- **Conceptualisation test**

The second projective technique used in the study of the perceptual preferences of seven-year-old child consumers was a conceptualisation test. This projective technique is usually applied to test a participant's attitude towards a particular object (Oppenheim, 1999:213). The conceptualisation test used in this study was the composition of an ideal cereal box.

Composition of an ideal cereal box

The conceptualisation test the child participants performed was the composition of an ideal cereal box through the use of plainly coloured mock cereal boxes, used in the previous mock cereal box colour shelf association test and graphic characters, also used in the previous mock cereal box graphic shelf association test. The test was performed to establish in which way child participants combine colour and graphic characters to represent their ideal cereal box design.

2.7.3.2 Semi-structured interview

Semi-structured interviews formed the second type of data collection instrument used in this study. In general semi-structured interviews are used to gain more detailed information regarding participants' perceptual preferences and opinions (Greeff, 2002:302; Maykut & Morehouse, 1994:81). This method allows more flexibility and adjustment according to the individual needs of the participants (Denscombe, 2004:167). In this instance the semi-structured interviews were completed by means of using open-

ended questions as included in an interview guide (included in Appendix B). During standardised open-ended questioning the purpose is to minimise variation in wording in order to ensure that the questions are interpreted in the same manner by all the participants (Greeff, 2002:302).

It is therefore particularly useful to apply semi-structured interviewing techniques for research with child participants as it allows them to freely express themselves by not feeling inhibited by the data collection method. The semi-structured interview also allows the researcher to apply an adaptable research environment when children have to be considered as they do not all experience the research environment in the same way.

2.7.4 The application of data instruments

The projective techniques were used in a particular order and in conjunction with semi-structured interviews. Each of the projective techniques was performed by the child participants through instructions given by the researcher. According to Gunter and Furnham (1998:161), the instructions given to participants are very important, as it could determine the quality of the data obtained. This is even more important when working with child participants as a misunderstanding could easily occur that could lead to unusable data (McNeal, 1999: 237). The instructions used in this study were refined during the pilot study to make sure that the instructions were clear and understandable from the child participant's perspective. The session with each child participant started with the request to complete the first projective technique which was the *mock cereal box colour shelf* exercise. This exercise was completed by instructing the child participant to look at the mock cereal box colour shelf and to tell the researcher which coloured cereal box he/she 'liked most' and 'liked least' by imagining that the colours were part of he/she favourite cereal box. The child participant was then asked, through a semi-structured interviewing technique, to explain why a particular coloured cereal box was chosen and what reason could be given for not choosing any of the other coloured cereal boxes.

The participants were required to complete another association test, in this instance a *mock cereal box graphic shelf*. As with the previous shelf, the child participant was instructed to look at the mock cereal box graphic shelf and to tell the researcher which cereal box he/she 'liked most' and 'liked least' by imagining that the graphics were part

of his/her favourite cereal box. A semi-structured interview followed during which the child participant had to explain why the particular cereal box was preferred.
During the last projective technique, namely the conceptualisation test, the child participants were instructed to complete an exercise referred to as the *composition of an ideal cereal box.* The instruction given to each of the child participants was to use the mock coloured cereal boxes and the graphic characters to compile his/her own ideal cereal box. The child participants had to give reasons in the semi-structured interview for selecting a specific coloured cereal box and graphic character.

2.8 DATA ANALYSIS

The study delivered two types of data sets, the first was the projective technique exercise data and the second set of data was the verbal expressions of the child participants. In order to analyse the data from the projective techniques and semi-structured interviews data analysis methods that would best reveal the thoughts, ideas and actions of child participants were applied. The projective technique data were divided into the different exercises. Each exercise was approached differently. In the mock cereal box colour shelf the data were analysed according to the number of times a particular coloured box was chosen; in the mock cereal box graphic shelf according to how many times a particular graphic character was chosen and lastly in the combination of an ideal cereal box exercise how many times a coloured cereal box and a specific graphic character were combined.

The semi-structured interviews were audio taped. This required the transcription of each recording in order to get a thorough impression of the verbal opinions of the child participants. Afrikaans statements were carefully translated into English to preserve the original meaning. The typed script then served as the data used to analyse the results, as supported by Hayes (2000:174). The second important step in analysing the semi-structured interviews is coding (Maykut & Morehouse, 1994:134; Babbie & Mouton, 2001:492; Denscombe, 2004:271). During the coding of the data, information was broken down and reordered (De Vos; 2002: 347). According to De Vos (2002:347) themes are ideas or topics detected repeatedly throughout the typed script while analysing the data. Therefore the next step followed for this study was to order coded data into relevant themes using the objectives as guidelines (Boyatzis, 1998:4; Henning

et al., 2004:102). Where necessary, themes were supported by literature. The analysed data are presented in tables included in Appendices C, D, E, F and G.

2.9 STRATEGIES TO ENSURE TRUSTWORTHINESS

When conducting qualitative research one of the most important factors to consider is the assurance of valuable and trustworthy data collection and analysis. In this study it was insured through implementation of strategies described in a model of Lincoln and Guba (1985:385), using the principles of Krefting (1991:212). Table 2 provides a summary of the strategies applied to ensure trustworthiness of data collection and analysis in this study of the perceptual preferences of seven-year-old children consumers.

Table 2: Strategies to ensure trustworthiness of data collection and analysis

Strategy	Criteria	Application
Credibility	Field experience	• A pilot study was performed to explore the research setting. • 40 semi-structured interviews were conducted with 2 association and 1 conceptualisation test. • Approximately 40 minutes were spent with each participant to allow them to verbalise their views of cereal box design.
	Reflexibility	• Field notes were compared to audio recordings and transcribed data.
	Triangulation	• Semi-structured interviews in conjunction with mock-up shelves were used as data collection methods. • Data collection by means of verbatim transcriptions. • Verbatim transcripts were quoted in the results. • Concepts and themes were identified and argued by research team. • Literature control on cereal box design, regarding colour and graphics was completed.
	Member checks	• Field notes were discussed with participants to ensure that the notes corresponded with their opinions.
	Peer debriefing/review	• Raw data were analysed by co-researcher. • Discussions with other researcher.
	Data collection techniques	• Pilot study on semi-structured interviews in conjunction with sorting exercise, mock-up shelves and picture drawing.
Transferability	Selection of sample	• Purposive sampling, recruiting participants between the ages of six and seven with equal numbers of boys and girls.
	In-depth description	• Description of methodology and results accompanied by verbatim quotations.
Dependability	Dependability audits	• Detailed analysis of themes and concepts controlled by experienced researchers.
	Dense description	• Detailed description of methodology.
	Triangulation	• 40 semi-structured interviews with 2 association and 1 conceptualisation tests were transcribed verbatim and compared to field notes.
	Peer examination	• Frequent discussion with colleagues.
	Question guide	• Participants were interviewed according to the same question guide.
Conformability	Conformability audit	• All records and transcripts were kept.
	Reflexibility	• Field notes were made and used for data analysis.

2.10 CONCLUSION

The qualitative approach was ideal to generate in-depth information about this relatively unknown research area in the South African context. However, for this study, the approach was also crucial in being able to generate relevant data from the specific study sample. To ensure trustworthiness and to generate true opinions from the participants the data collection methods had to be planned very carefully. The fact that children can be shy and mistrusting towards strangers had to be considered. Therefore, a semi-structured interview was used with two types of projective techniques, namely two association tests and on conceptualisation test. Furthermore, the different data-collection methods contributed to the relaxed atmosphere, enhancing the participants' trust towards the researcher, resulting in an almost 'game-like' environment. These methods proved to be very successful in dealing with the child participants by motivating spontaneous participation.

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CHAPTER 3

CHILD CONSUMERS' PERCEPTION OF COLOUR AND GRAPHICS IN CEREAL BOX PACKAGING DESIGN

(Article to be submitted to the Journal of Retailing)

CHILD CONSUMERS' PERCEPTION OF COLOUR AND GRAPHICS IN CEREAL BOX PACKAGING DESIGN

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CHILD CONSUMERS' PERCEPTION OF COLOUR AND GRAPHICS IN CEREAL BOX PACKAGING DESIGN

ABSTRACT

An exploratory investigation was conducted within a South African context to explore seven-year-olds' perceptual preferences regarding the colour and graphical design of cereal box packaging. Results from the projective techniques in conjunction with a semi-structured interview included a tendency to focus on personal factors when perceptually most preferred choices were made, but colour and graphical characters' qualities as the main criteria when perceptually least preferred choices were made. Manufacturers should focus on aesthetically pleasing characters on either pink or purple when girls are the target, whereas boys would favour humorous, aggressive characters on any primary colour. Most significant, regardless of preferred colours and graphics, is a preoccupation with matching graphics to background colours of the packaging.

INTRODUCTION

McNeal and Ji (1999) argue that the child as a consumer has been a topic of growing research over the last thirty years, with reference to being a customer, buyer, spender, shopper and consumer (McNeal 1992a). Furthermore these consumers are considered to be 'self-reliant youngsters', 'pretty savvy consumers', 'materialistic', 'surprisingly independent' and 'influential consumers' (McNeal 1992a; Özgen 2003). McNeal's (1992a) description of child consumers is evident of the considerable consumer force that the child consumer exhibits that should not be ignored.

The impact of this child consumer force has not been researched from a South African perspective, leaving uncertainties as to the impact of such an arguable market in the South African context. The question arising from a marketer's perspective is how this new, evolving market can be reached and influenced into making specific targeted consumer purchases. An answer to this pressing matter may be in product packaging and design that can have a great influence on both manufacturers' and marketers' approach to include the child consumer in their product development and marketing strategies (McNeal 1992). Especially in a South African context limited guidelines exist that specifically inform marketers and manufacturers on how to address the South African child as a consumer. This is evident from the lack of research in this area. Research indicates that studies related to the child consumer have focused on nutrition rather than consumer behaviour (De Villiers 2000; Kruger and Gericke 2001; Rojhani and Niewiadomska 2004; Kruger and Gericke 2004). This highlights the importance of studying the child as a consumer in the South African context.

It can be questioned how this new growing market could be reached. Grimes and Doole (1998) suggest that manufacturers should take their products further than merely the promotion of tangible, functional and salient benefits and into the mystical dominion of emotion, perception and image. Therefore, striving to reach consumers on a deeper emotional level using non-verbal cues such a combination of colours, designs, shapes and symbols (Wright 1997). This suggestion could also benefit marketing strategies where child consumers are concerned.

It is especially the packaging of products that form an essential part of the marketing strategy to entice the child consumer. This can be argued from McNeal's and Ji's (1999) research, since they are of the opinion that children respond better to colour and graphics than to grammatical information. Based on this argument this research project is driven by the question of whether seven-year-old child consumers have specific perceptual colour and graphic preferences regarding the packaging design of cereal boxes. The first objective was to determine the association of seven-year-old children regarding colour and graphics of cereal box design, with specific reference to their perceptually preferred colours and graphics. The second objective was aimed at determining the conceptualisation of seven-year-old children regarding colour and graphics of cereal box design: an ideal combination of colour and graphics.

BACKGROUND

Active child consumer

McNeal (1992b) suggests that the active role the child plays in today's consumer market is a result of the considerable amounts of money they have to spend on needs and wants of their own, making them a primary market to reckon with. It can be assumed

that this situation can result in the child consumer becoming a master of the marketplace, subsequently forming a market segment of their own (Anderson and Meyer 2000; McNeal 1992b; Pecora 1995). The depth of this market segment can be studied through McNeal's (1992b) multidimensional model of the child market in which the child features as a consumer.

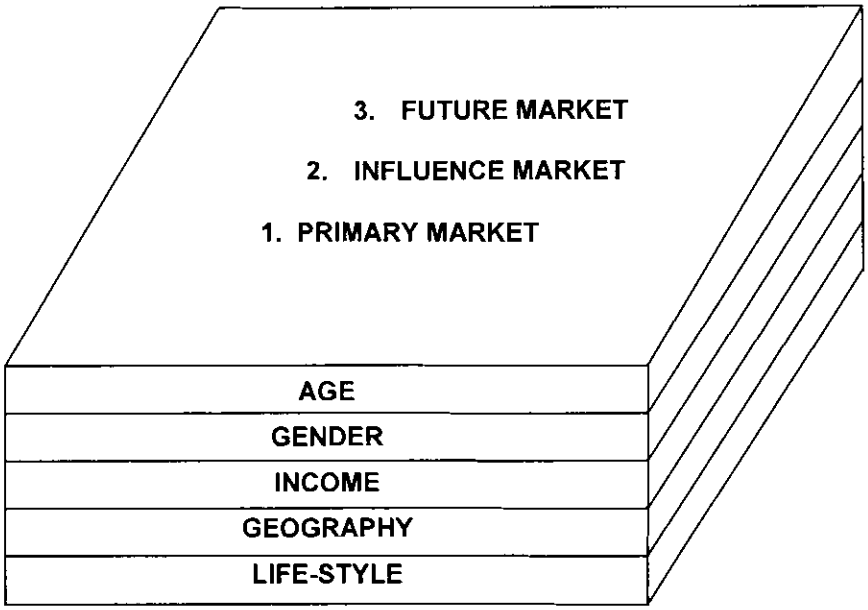

Figure 1: Children as a multidimensional market (After McNeal 1992b)

McNeal's (1992b) approach to the child consumer market is a holistic approach whereby the child is considered to be characteristic of three different markets. These markets are the primary market, where child consumers are able to spend their own money; an influential market, where the child consumer influences his/her parents' buying decisions and behaviour and a future market, where the child will become a consumer of all products and services, as they grow older. These form the vertical layers of McNeal's model as illustrated in Figure 1. McNeal (1992b) is of the opinion that all three these markets exist simultaneously in a child consumer. This model illustrates the

complexity of the child consumer market and various levels that need to be addressed when marketing and producing products for the child consumer.

Furthermore this model also consists of horizontal layers that show the additional qualities a child consumer market may include (figure 1). These are qualities such as age, gender, income, geography and life-style. Such qualities may be added to any of the market segments and in no particular order or frequency.

McNeal's (1992b) model is well founded and supported in various scientific studies. The primary market segment concept is supported by Schor (2004) who clearly states that the child consumers have access to more money than ever before, indicating their consumer independency. This independency is exhibited through individual shopping trips, purchasing a relatively wide range of items that could include anything from magazines, books, snacks, school supplies, and play items to clothing (McNeal and Yeh 1997). The primary market is also characterised by the occurrence of almost half (44 %) of children comparing prices during a shopping trip (McNeal and Yeh 1993) and being equally knowledgeable and actively involved in identifying with brands (Schor 2004; Valkenburg and Cantorb 2001; Özgen 2003; Dotson and Hyatt 2000) resulting in an enormous potential market.

McNeal and Yeh's (1997) research on Chinese children supports the idea of children as an influential market segment in McNeal's (1992b) model. They found that children exert a great influence on family spending. Their overall index of the influence on family spending on 25 items was around 68 %. This is in agreement with Özgen (2003) who states that children's influences on families' buying decisions are very strong. The influential children's market segment portrays the assumption that children

have larger roles in household consumer decisions, forming an increasingly powerful market segment (Wilson and Wood 2004). Sutherland and Thompson (2003) indicate that even parents agree to this occurrence by stating that their child's appeal to them for particular purchases has more influence on their shopping decisions than has advertising. Therefore the influence of the child market segment is greater than expected and may be particularly valuable in marketing and manufacturing strategies.

Based on the support given by various authors to the primary and influential child market segments in McNeal's (1992b) model, it can be assumed that the future market segment may arguably be more advanced when children become adult consumers. However, it is important to note that the support for McNeal's (1992b) model does not provide substantial proof of the South African child consumer market segment. Consequently, the question how the South African child as consumer can be reached by manufacturers and marketers has to be addressed; therefore, some strategies focusing on targeting the child market segment can be identified.

Strategies focused on targeting child consumers

According to McNeal (1992a) children are the most difficult of all consumer markets to understand. It has previously been argued by Grimes and Doole (1998) that manufacturers should approach the promotion of their products on a different level to what has previously been done. It can be argued that the consumer's perception of a product should rather be targeted and influenced. This can be achieved through the combination of colours, graphic designs, shapes and symbols, all engineered to attract and sustain attention (Wright 1997). Gimba (1998) supports the fact that colour is an important quality through which a consumer's attention can be obtained as colour could

function as a primary communicator of the marketing message in product design and packaging.

Colour as a strategic tool in conveying a marketing message

According to Wiley (2000) different beliefs revolve around how colour is produced, indicating colour as a product of passion or the vibrations of the soul. Wiley (2000) is also of the opinion that colour is more than simply something a person would see; and that colour affects the body and soul. Scientific research confirms the essence of Wiley's opinion. For instance, results from a study conducted by Crowley (1993) in a retail environment validates that colour has different physical effects on consumers' shopping behaviour, ranging from either an evaluative or an activating response. However, colour does not only affect a person physically, but can also play an important role in a consumer's danger and other perceptions of products (Clydesdale 1993; Kline et al. 1993). Colour is also responsible for influencing consumers' assumed perception of other product elements such as the odour and taste of the particular product that they perceive (Blackwell 1995; Strugnell 1997).

Therefore colour is influential in determining a consumer's beliefs, shopping behaviour and product perceptions (Crowley 1993; Clydesdale 1993; Kline et al. 1993; Blackwell 1995; Strugnell 1997). Consequently, the goal for marketers and manufacturers would be to select colours that maximise attention, provide an appealing portrayal of the product and arouse appropriate feelings (Wells et al. 1992; Grimes and Doole 1998). However, it is uncertain what further effects colour have on child consumers, as only research on the adult consumer prevails.

The general effects of colour on children

According to Percheux and Derbaix (2002) children consult their mood as an outstanding source of relevant information when a decision has to be made, rather than analysing available grammatical information. This reflects the child's greater use of colour as an indication of a possible positive outcome the product may have for them, consequently influencing their emotions, such as their mood (Gorn et al. 1997; Anon 2001; Nodie Washington (*in* Haisley and Azoulay 2003)). Burkitt et al. (2004) are of the opinion that the way in which children use mood to base their decision on can be used to the advantage of ensuring a positive mood induction. In addition Schwarz and Clore (2003) also found that children use moods as a mechanism to simplify complex tasks which they have to perform under pressure. In this instance the choices a child makes can be simplified by providing stimuli that have positive associations for the child, for example by using a preferred colour. This would ease the choice as a positive mood would prevail in the choice that the child makes.

From the above discussion it is evident that the use of colour in packaging would enforce an emotional reaction in children, resulting in definite preferences. Unfortunately when considering packaging in this context there is no sure way to isolate its effects from other role players such as the graphical ornamentation, such as the pictures and grammatical information.

Graphics as a strategic tool in a marketing message

According to Hill (2002), the use of cartoon and animal characters creates greater product attraction for children, especially when used on the front panel of cereal boxes. Verharen (*in* Preston 2004) found that younger children's ability to distinguish advertising from programme material diminishes with the use of celebrities and cartoons.

Therefore, it can be argued that graphic character displays have a definite effect on child consumers. Acuff and Reiher (1997) elaborate on this fact by proposing that children fulfil their needs to a certain extent through contact with different characters, suggesting the following categories in which children essentially identify with characters:

- Nurturing: These characters are perceived by children as having nurturing qualities.
- Like me: The child identifies with the character, some quality or aspect of the character.
- Emulation: The child wants to be like the character in some way.
- Disidentification: Children are attracted to the dark side of the character or his/her dark side qualities, entertained by their violence, abusive or evil ways.

Specific ways to combine the effects of colour and graphic characters on child consumers is debatable; a possible means can be through the packaging design of products.

Packaging as strategic marketing tool

According to McNeal (1992b) packaging could provide children with an honest visual presentation of product features in a time span of a few seconds. This can only be achieved if the right colours, words and graphics that match their developmental level have been used. This emphasises the importance of using the correct elements that have a positive influence on the child. Furthermore, parents consider packaging as one of the perceptual elements that could have the greatest influences on their children's choice and selection of products (Wilson and Wood 2004). Based on these arguments manufacturers and marketers should not ignore the importance of packaging as strategic

marketing tool (Wright 1997). This is especially applicable where the use of colour and graphics is applied in a more effective way, whereby the child's attention is attracted to the product (McNeal 1992a; Gimba 1998; Wilson and Wood 2004).

The influence of such stimuli as colour and graphics on child consumers is an important link to be researched where the packaging of products specifically aimed at the child consumer market, is concerned. The value of the perceptual process of a child consumer needs to be understood if marketing strategies are to be applied on the different marketing segments of a child consumer.

METHOD

Since a more thorough understanding of children's perceptual preferences regarding cereal box design was needed, an in-depth exploratory and descriptive, qualitative study approach was adopted as it offers the participants freedom with which to express themselves (Henning et al. 2004; Ruane 2005). A convenience sampling procedure was applied. Four primary schools which adhered to the following convenience criteria were identified: the schools needed to be in close proximity to the North-West University, needed to include the dominant ethnic groups in Potchefstroom and had to give consent to take part in the study.

The child participants needed to be in the pre-operational stage of development (Piaget 1952) to ensure that they would not be fully literate, allowing them to rather revert to graphical and colour influences than to wording on the packaging. Consequently child participants from the primary schools were identified through a purposive sampling procedure, to include the following criteria: children between the

ages of six to seven years, an equal number of boys and girls, (in which case five boys and five girls were identified from each participating primary school), children able to speak either Afrikaans or English and part of the different ethnic groups represented within the six to seven year age group in the school. Consent forms informing the parents of the nature and purpose of the study were handed out to these children. This sampling procedure identified 20 boys and 20 girls of different ethnic groups as the study participants. Ethical approval from the North-West University ethical board was obtained and registered as project 04K11.

Cereal boxes were included as research topic due to the fact that children are socialised to spend their money on mainly cereal, toys and snacks (Johnson and Young, 2002), cereals are third in line of all products that children expect to buy when going shopping (McNeal and Ji 2003) and in a South African context it is evident of colourful packaging aimed at the child consumer market.

Before data collection could take place, a pilot study was undertaken to determine whether the research approach would be suitable and to test certain questions, especially the appropriateness of the wording of the open ended questions. The pilot study also proved to be helpful in determining the effectiveness of each instrument intended to be used in this study (Strydom 2004). According to McNeal (1999) projective techniques are very effective data collection methods where child participants are involved, since more than two thirds of all stimuli reach the human child's brain through the visual system. As a result, this study made use of projective techniques, namely two association tests and one conceptualisation test. The limited reading and writing abilities of the participants motivated the use of verbal communication during data collection techniques. Therefore, semi-structured interviews

were used to support the projective techniques in probing the ideas and thoughts of the child participants.

The first projective technique presented consisted of an association test where a mock cereal box colour shelf was presented to the child participant. The child participants were asked to associate their favourite colour with a cereal box. Eight plain coloured mock cereal boxes (blue, green, yellow, red, purple, orange, pink and brown) with dimensions particular of cereal boxes found in stores, were used. The colours of these mock cereal boxes used in the study were narrowed down to include only those presently used on cereal box designs exclusively aimed at the children's market. Only cereal box colours freely available in the Potchefstroom regional stores were included in the mock cereal box colour shelves.

The second association test was the mock cereal box graphic shelf. This shelf contained an extra twenty white mock cereal boxes each with different graphic characters on it. Due to the vast variety of graphic characters available, Acuff and Reiher's (1997) division of graphic characters into four groups as explained in the background of this article, were applied. This technique resulted in the graphic categories summarised in Table 1.

Table 1: Summary of graphic characters in each graphic category used in the study of the perceptual preferences of seven-year-old child consumers

CATEGORIES				
Nurturing	Little Mermaid	Barbie	Cinderella	Lion King
Like me	Nemo	Shrek	Sponge Bob	Robots
Emulation	Tennis	Cricket	Rugby	Soccer
Disidentification	Matrix	Robin	Catwoman	Elektra
Cereal graphics	Cocopops	Froot Loops	Rice Krispies	Frosties

Another graphic category was added that represented the well-known cereal box graphics. This category included graphics such as Cocopops, Froot Loops, Rice Krispies and Frosties. These graphic characters were also found in the Potchefstroom regional stores and are well associated with children cereal box brands.

The conceptualisation test the child participants performed was the composition of an ideal cereal box through the use of the plainly coloured mock cereal boxes (used in the previous mock cereal box colour shelf association test) and graphic characters (also used in the previous mock cereal box graphic shelf association test). The test was performed to establish in which way child participants combine colour and graphic characters to represent their ideal cereal box design.

The semi-structured interviews, accompanying the projective techniques, were audio taped. This required the transcription of each recording in order to get a thorough impression of the verbal opinions of the child participants. Afrikaans statements were carefully translated into English to preserve the original meaning. This typed script then became the data used to analyse the results, as supported by Hayes (2000). Coded data were sorted into relevant themes using the objectives as guidelines (Boyatzis 1998; Henning et al. 2004; Babbie and Mouton 2001; Denscombe 2004).

By implementing Lincoln and Guba's (1985) strategies and the principles of Krefting's (1991), trustworthiness of data collection and interpretation were established. Table 2 provides a summary of the strategies applied to ensure trustworthiness of data collection and analysis in this study of the perceptual preferences of seven-year-old child consumers for the colour and graphical design of cereal boxes.

Table 2: Strategies to ensure trustworthiness of data collection and analysis

Strategy	Criteria	Application
Credibility	Field experience	• A pilot study was performed to explore the research setting. • 40 semi-structured interviews were conducted with two association tests and one conceptualisation test. • Approximately 40 minutes were spent with each participant to allow them to verbalise their views of cereal box design.
	Reflexibility	• Field notes were compared to audio recordings and transcribed data.
	Triangulation	• Semi-structured interviews in conjunction with mock-up shelves were used as data collection methods. • Data collection by means of verbatim transcriptions. • Verbatim transcripts were quoted in the results. • Concepts and themes were identified and argued by the research team. • Literature control on cereal box design, regarding colour and graphics was completed.
	Member checks	• Field notes were discussed with participants to ensure the notes correspond with their opinions.
	Peer debriefing/review	• Raw data were analysed by a co-researchers. • Discussions with other researchers.
	Data collection techniques	• Pilot study on semi-structured interviews in conjunction with sorting exercise, mock-up shelves and picture drawing.
Transferability	Selection of sample	• Purposive sampling, recruiting participants between the ages of six and seven with equal numbers of boys and girls.
	In-depth description	• Description of methodology and results accompanied by verbatim quotations.
Dependability	Dependability audits	• Detailed analysis of themes and concepts controlled by experienced researchers.
	Dense description	• Detailed description of methodology.
	Triangulation	• 40 semi-structured interviews with 2 association tests and 1 conceptualisation test were transcribed verbatim and compared to field notes.
	Peer examination	• Frequent discussion with colleagues.
	Question guide	• Participants were interviewed according to the same question guide.
Conformability	Conformability audit	• All records and transcripts were kept.
	Reflexibility	• Field notes were made and used for data analysis.

RESULTS AND DISCUSSION

The results of this study will be discussed according to the set objectives. Although the study was not planned to include variations in boys' and girls' perceptual preferences, the data included a considerable number of interesting differences that the researcher considered necessary to include these in the discussion.

To determine the association of seven-year-old children regarding colour and graphics of cereal box packaging design by exploring the *perceptually preferred colours* in cereal box packaging

Data revealed blue, red, pink and purple as the perceptually most preferred colours used on cereal boxes as indicated by quotes such as: '..blue is my favourite colour,' and 'I like pink...'. The child consumers' least preferred cereal box colours were brown, pink / orange and yellow as indicated by quotes such as 'I hate brown..' and '..I don't like brown..', where brown was found to be the least preferred colour for use on cereal box packaging among the vast majority of child consumers. Their reasons for these perceptual preferences will be discussed under the following themes:

Theme: Seven-year-old child consumers' distinction between most and least preferred cereal box colours based on intrinsic and extrinsic factors

This theme was addressed through **two basic groups** namely the **child consumer's most preferred colours** and the **child consumer's least preferred colours**. Furthermore, both groups were sub-divided into concepts based on either the child's personal qualities (intrinsic factors) or the colours' qualities (extrinsic factors).

Group 1: Child consumer's most preferred colours

It became apparent that seven-year-old child consumers use the concept **personal factors** with which to identify the perceptual preferences to cereal box colours. These personal factors included the following sub concepts, *emotional motivation based on favourites and best colours, personal approval of colours as being liked, gender stereotyping as well as parental socialisation* and *personal associations.*

Emotional motivation based on favourites and best colours was indicated through a strong tendency to make use of emotional motivations to make a choice of their most preferred cereal box colour which became clear through statements such as, '...my favourite colour...' and '..it's my best colour...'. *Personal approval of colour as being liked,* as a sub-concept indicated that the child consumers also tended to base their perceptual preferences on their own personal approval of the colour as being liked: '..I like it..' and '..I like to draw in...'. *Gender stereotyping,* confirms the existence of strong gender stereotyping between the child consumers by referring to the colours as particular to a gender such as, '..it's a boys' colour..' and '..cause it's a blue, it's for boys..'. *Parental socialisation* is indicative of the parents' role as a child socialiser as illustrated through the following statement: '..my mommy always tells me I should colour in pink or blue..'. *Personal association* was evident through the following statements: '..I have a dolphin room and it is blue..' and '..I wear pink everyday..', where the child consumers' use of well-known personal situations through which their choice of cereal box colour was facilitated became evident.

The second concept that featured as a manner to make a distinction between the seven-year-old child consumers' most preferred cereal box colours was the **colour's**

qualities. Sub-concepts that were identified included *overall evaluation of the colour and the colour's intensity and value qualities.*

Overall evaluation of the colour, as the first sub-concept depicts that personal criteria set by the child consumer regarding the cereal box colour had to be pleasing as a whole. The colour perception as a whole therefore needed to be evaluated as 'pretty' to be outlined as the child consumer's most preferred cereal box colour, ('..because it is a very pretty colour..' and '..it looks pretty..'). *Intensity and value qualities* of the colour brought to light the importance of these qualities in the child consumer's perceptual preference for cereal box colours in statements such as: '..because it's dark red..' and '..because the colour is bright..'.

From these results, it is evident that child consumers take personal factors into consideration more than the other concepts, when providing reasons for their choice of perceptually preferred cereal box colours. Very few colour qualities are used to base their decision for their most preferred colours upon.

Group 2: Child consumer's least preferred colours

Three concepts were identified to describe this group namely personal factors, the colour's qualities and the cereal box's qualities. As in the perceptually most preferred colour choices, **personal factors** also featured as a distinction method for the least preferred cereal box colours. Sub-concepts that underlined this first concept included, *emotional motivation based on personal dislike* and *gender stereotyping.*

Emotional motivation based on personal dislike of the colour, illustrated that child consumers tend to make use of emotional motivations to make a perceptually preferred

choice for the cereal box colour. This was evident through the following statements: '..I don't like that colour..' and '..I hate brown..'. *Gender stereotyping* not only played a role during the child consumers' choice of the most preferred cereal box colour but also influenced their choice of their least preferred cereal box colour ('..it's a girl's colour..' and '..pink is a girl colour..').

Based on the **colour's qualities** a clear distinction could be made between the child consumers' mode of choice of most preferred colours, mainly based on personal factors in comparison with their approach to selecting the least preferred cereal box colours, based on the cereal box's colour qualities. Through this concept of the **colour's qualities**, several sub-concepts emerged, namely: *colour is aesthetically unappealing, negative intensity and value qualities, inadequacy of the colour to serve as a cereal box colour, negative association with other elements* and *poor potential for use as a background colour.*

Aesthetically unappealing colour qualities were identified as criteria that child consumers did not perceptually prefer in a cereal box colour, as depicted in the following statements: '..it isn't pretty..' and '..not a pretty colour..'. *Negative intensity and value qualities* of a colour was illustrated through their perception of a colour as being too light, dark or bright. This was motivated through their statements such as: '..it's too dark..' and '..because it's light..'. *Inadequacy of the colour to serve as cereal box colouring* was captured through statements such as: '..he can't make a pretty colour on an cereal box..', as an indication that the colour would not be suitable in this regard. *Negative association with other elements* were found in statements depicting colour or substance associations such as: '..it looks like black..' and '..it looks like mud..'. It was particularly the brown cereal box that was mostly associated with negative elements. *Poor potential*

for use as background colour was outlined by the child consumer through statements such as: '..if you draw a picture on it, it wouldn't stand out that nicely..' and '..because you can only draw bright colours on it...'. These findings illustrate that manufacturers and marketers should make use of the following colours and their relevant variations, namely blue, red, pink and purple, if they want to attract the child consumer's attention.

The colour red seems to be a suitable choice for the packaging design of cereal boxes if the preferences of both genders are to be accommodated. Choungourian's (1968) study confirms these results, claiming that 5-year-old children's favourite colour is red, irrespective of their gender. Furthermore, the present study indicated, the colour brown as a background colour should be avoided as far as possible for cereal box packaging. Child consumers mostly made use of intrinsic personal factors when their most preferred cereal box colours were chosen and mainly extrinsic factors regarding the colours' qualities to make a least preferred cereal box colour choice.

To determine the association of seven-year-old children regarding colour and graphics of cereal box packaging design by exploring the *perceptually preferred graphics* in cereal box packaging

The second association test consisting of the mock cereal box graphic shelf revealed the following perceptual graphical preferences of child consumers. Barbie was perceptually the most preferred graphic, but this was attributed to the majority of the girl consumers' perceptual preference of this specific graphic. In contrast, the boy consumers preferred the Robin and Sponge Bob graphics. When taking the categories outlined by Acuff and Reiher (1997) into consideration (table 1), it became clear that the girl consumers favoured graphics from the 'nurturing' category, while the boy participants

favoured 'disidentification' and 'like me' graphics. The relevance of this will be discussed in more detail.

The majority of girl consumers chose Matrix, in the 'disidentification' category as their least preferred graphic. No specific character could be identified as the boy consumers' least preferred. These results therefore clearly illustrate that seven-year-old child consumers do have specific graphic preferences to be used on cereal box packaging. The following theme will address the reasons given on why the child consumers have these specific perceptual preferences regarding graphical cereal box design:

Theme: Seven-year-old child consumer's distinction between most and least preferred cereal box graphics based on intrinsic and extrinsic factors

Two basic groups support the theme, namely **child consumer's most preferred cereal box graphic** and **child consumers least preferred graphic**. Furthermore both groups were sub-divided into different concepts. Data from the first group, regarding the child consumer's most preferred cereal box graphic, were sub-divided into concepts, such as: the character's qualities, specific elements present in the graphic, specific pre-determined ideas and an existing movie they liked or favoured. Each concept was further explained through several sub-concepts.

Group 1: Child consumer's most preferred cereal box graphic

Data revealed the importance of the positive perceptions of seven-year-old child consumers towards the concept **characters' qualities** when a distinction between most and least preferred cereal box graphics had to be made. These qualities of the characters that elicited positive perceptions from the child consumer included the following sub-concepts: *characters' appearance*, the *characters' personality traits* and *inhuman abilities*.

Characters' appearance as a sub-concept was based on the child consumers' observation of positive facial or overall appearance of the characters which was supported by the following statements: '..because he is pretty..' and '..they look kind of cute..'. *Personality traits* that reflected a humorous side of the character was a quality that was highlighted in statements such as: '..is funny..' and '..he makes jokes..'. One of the boy consumers' most preferred graphics, Sponge Bob, in the 'like me' category, was popular due to his humorous character, and therefore a clear example of a character with appealing personality traits. Studies conducted by researchers as early as the 1970's, revealed the tendency to characterise joking and humour appreciation as an essentially masculine attribute in Western Cultures (Fine 1976). Consequently, the child consumers wanted to be as funny and humorous as their preferred character.

The *inhuman ability* of the character to perform inhuman acts, was found in the following statements: '..she can jump around on the buildings..' and '..can blow up with water..'. This sub-concept was specifically evident of the 'disidentification' category. Although the objectives and design of the study did not provide for comparison between boys and girls, it was interesting to note that the boy consumers favoured this category more than the girl consumers. The graphic of Catwoman was the girls' second most

preferred graphic, due to her inhuman abilities ('..she can jump around on buildings..'). The boys preferred the graphic of Robin, also due to the character's inhuman abilities ('..because it is a superhero..', '..because he can fly and he can press his hand into people's stomachs and they have guns...'). In this category, the child consumers were drawn to the dark and dangerous abilities of the characters. These findings support the view of Acuff and Reiher (1997) that boys tend to prefer more aggressive characters (such as Robin) in contrast with girls' preference for softer, less aggressive characters (such as Barbie).

The second concept based on the **presence of specific elements in the graphic**, was constituted of the following sub-concepts: *the presence of a main element, colour usage in the graphic or an overall graphical appearance.*

The *presence of a main element* was highlighted by the child consumers as the presence of a favourite element in the graphic, which was evident through their statements: '..because it is of lions..' and '..it is my favourite animal..'. *Colour usage on the graphic* affirms the importance of colour usage in cereal box design, which was also apparent in the first association test with the mock cereal box colour shelf. It became clear through some of the child consumers' persistent reference to the colours used, regardless of the graphical characters present, as confirmed through the following statements: '..because he is pink and purple and different colours..' and '..it's colourful..'. *Overall appearance of the graphic* that was due to an overall pleasing appearance of the graphic was highlighted as the most preferred cereal box graphic. This overall positive evaluation is evident through the child consumers' statements such as: '..it's a pretty picture..' and '..because I like the picture..'.

Another concept confirmed by both the association tests, the mock colour cereal box shelf and the mock graphic cereal box shelf, was the existence of **predetermined ideas** under the seven-year-old child consumers regarding gender stereotyping. *Gender stereotyping* confirms the choice of the most preferred cereal box graphic, based on the perception of what is associated as acceptable for girls or boys ('..it's girls stuff.' and '..because they are girls..').

The concept of movies revealed the influence of the media and **movies** on the child consumers. Child consumers based their choice of most preferred cereal box graphics on the following sub-concepts: *have seen a specific movie once, the specific movie is seen on a continuous basis or that they would like to see the specific movie.*

The sub-concept of a *movie seen once* indicated that the child consumer based their choice on the fact that the graphical character was a reminder of a specific movie they have seen once ('..I saw the movie..'), therefore underlining the importance of the influence that the media and movies can have on child consumers. The *movie is seen on a continuous basis* is supported by the statement: '..because I like to watch it..'. This highlights the association of a movie seen on a continuous basis with a cereal box graphic choice made by seven-year-old child consumers. *Wish to see the movie,* as a sub-concept revealed that even only a wish to see a specific movie could influence the child consumer's choice of preferred cereal box graphics. This was confirmed by the following statement: '..because I would like to see the movie..'.

Group 2: Child consumers' least preferred graphics:

The second group derived from the second association test, the mock cereal box graphic shelf, namely, the child consumer's least preferred cereal box graphics, included

several more concepts with sub-concepts. Concepts included the following: dislikes based on personal factors, the presence of a specific graphic quality, a strong dislike towards sport, specific pre-determined ideas, an existing movie they have seen, the graphic's appearance as a whole and the character's qualities.

Data included the concept that the child consumer not only consulted **personal** or intrinsic role players to make a choice of most preferred colours (as evident in the first association test), but also to make a distinction when least preferred cereal box graphics had to be chosen, ('..because I don't like it..'). Some child consumers chose to make a choice of least preferred cereal box graphics based on the concept that a **specific quality is portrayed by the graphic**. This was clear from the following statements: '..I don't like black..' and '..I don't like guns..'. Graphics of famous sport stars were included under the emulation graphic group. However, only negative reactions towards this group were portrayed by child consumers due to a concept that indicated a **strong dislike in sport**, as illustrated by these statements derived from the data: '..because I hate tennis.' and '..I don't like cricket..'.

Data about gender stereotyping made it clear that the child consumers not only used this **predetermined idea** to distinguish most preferred cereal box graphics but also the least preferred cereal box graphics. This became apparent due to *both genders' strong evasion towards graphics portraying characters from an opposite gender. Gender stereotyping from a boy's perspective* is revealed in the following statements: '..because it is for a girl..' and '..it's girl stuff..', depicting the boy consumers' dislike of certain cereal box graphics. *Gender stereotyping from a girl's perspective* was also portrayed ('..it's for boys..' and '..it's like boys..') but in this case towards the presence of boy-like characters.

Yet again, the same concepts feature as in the group of most preferred cereal box graphics. It could therefore be argued that child consumers make use of similar criteria to distinguish between most and least preferred cereal box graphics. The statements from the next concept make it clear that some elements in the existing **movie** are seen as unacceptable ('..when all the cats come and then she becomes catwoman..' and '..because we are not allowed to watch it, it is not nice..').

Data revealed that child consumers evaluate the **cereal box graphic as a whole** to use as criteria in their choice of a least preferred cereal box graphic ('..doesn't look nice..' and '..it's ugly..').

Contrary to the first group under these themes' concepts, where characters' qualities were used to evaluate the character as the most preferred cereal box graphic, the child consumers used negative **character qualities** to classify the cereal box graphic as least preferred. Sub-concepts included, *the character's appearance and negative actions.*

Characters' appearance as the first sub-concept revealed by the data illustrated the importance of the appearance of a character on a cereal box graphic. Child consumers made this clear in their statements: '..because he is bald headed and has dark clothes and guns..' and '..he looks scary..'. *Negative actions,* the last sub-concept, illustrated the importance of the characters' actions ('..he always fights against guys..' and '..because he shoots the guys..'). These characters were classified as least preferred based on dark and violent behaviour that was not acceptable to the child consumer.

Based on the results from this association test, the mock cereal box graphic shelf, it is clear that child consumers will always take certain aspects into consideration when a perceptual evaluation is conducted to distinguish between most and least preferred cereal box graphics. These perceptual evaluation criteria include the overall appearance of the graphic as well as the character present on the graphics' qualities. Marketers and manufacturers should not underestimate the power of predetermined ideas and the role that the media and movies play in the child consumer's perceptual preference choices.

To determine the conceptualisation of seven-year-old children regarding colour and graphics of cereal box packaging design through *the composition of an ideal cereal box*

When the child consumers were asked to combine their own cereal boxes from provided graphics and coloured boxes some preferred to make only one box, while others combined up to eight boxes. To coordinate the analyses only the first box of each participant was analysed. The colours and graphics used will subsequently be discussed in more detail.

The colours generally preferred by child consumers were purple, blue and pink / red. The boy consumers gave preference to blue, red and yellow / purple in contrast to the girl consumer's choice of purple, pink and green. These results triangulate with the results derived from the mock cereal box colour shelf association test, where the boy consumers also preferred the primary colours to be used on their cereal boxes and the girl consumers pink and purple. The findings were also confirmed by Marshall (2006), who found that girl consumers preferred general product packaging to be pink. It can

therefore be argued that the child consumers used their favourite colours to combine their idea of an ideal cereal box.

Barbie and Catwoman were the overall favourite cereal box graphics due to the girl consumers' strong preference for these graphics. From the boy consumers' perspective, Robin and Catwoman would be the best graphics to be used on a cereal box. Yet again these results triangulate with the results from those of the mock cereal box graphic shelve association test. However, it is noteworthy that the graphic of Sponge Bob did not feature as strongly in this activity when compared with results from the association tests.

Theme: Seven-year-old child consumer's ideal combination of colour and graphics in cereal box design

This theme addressed the reasons why the child consumers combined certain graphics and colours on their ideal cereal boxes. The child consumers' reasons for using specific combinations in their ideal cereal box were divided into concepts, indicating the child consumer's perceptual preference based on *personal persistence*, *the relation between the graphic and coloured box, on the colour's qualities, on the graphic's qualities* and *other role-players* influencing their perceptual preferences.

In the conceptualisation test, data revealed the child consumers' tendency to make use of **personal qualities** when choices regarding their ideal cereal box design had to be made, as was the case in the association tests. This tendency was clear in the following statements where the child consumers own will was clearly illustrated: '..because I always want it on the orange box..' and '..I want him there..'.

The most important variable considered by the child consumers when an ideal cereal box had to be combined was the **relation between the colours and graphics used**. This was evident in the sub-concepts that emerged from the data, namely *specific parts are the same, different parts fit together* and *the overall appearance is pleasing.*

Specific parts are the same, as a sub-concept revealed the importance of specific elements present in the graphics' resemblance with the coloured box ('..the lion's yellow goes with the box..' and '..because it is the colour of the flowers..'). *Different parts fit together,* as a sub-oncept did not highlight a specific element in the graphic, but only the importance of different parts fitting together, ('..it goes a little with it..' and '..because it fits..'). *The overall appearance is pleasing* as a sub-concept revealed that some of the child consumers made use of an overall soothing or pleasing appearance as criterion to combine their ideal cereal box, ('..because it looks pretty together..' and '..he would look pretty on it..').

Some of the child consumers favoured use of their most preferred **colour**, was evident in the association test, namely the mock cereal box colour shelf. Reasons for favouring their preferred cereal box colour were sorted under the following sub concepts: the *colour's intensity and value* were preferred or a *personal favouring of the colour.*

Colours' intensity and value, as the first sub-oncept, revealed one of the same reasons why the child consumers chose specific colours as preferred cereal box colour, as in the first association test, namely the colour's intensity and value. This was motivated through the following statements: '..because orange is nice and bright..' and '..green is bright like orange..'. *Child's personal favouring of the colour* was evident of the child consumer's tendency to make choices based on personal favouring and was

apparent in both association tests. Yet again the following statements confirmed this tendency in the conceptualistion test: '..blue and green is my favourite colour..' and '..pink is my best colour..'.

The concept of **graphical qualities**, featured when child consumers chose their most preferred cereal box graphic to use in their ideal combination of graphics and colours. This preference was based on specific graphical qualities as illustrated in the following statements: '..he is the prettiest..' and '..his face is pretty..'.

The last concept identified embodied **other role -players** used as reasoning for the different combinations of an ideal cereal box design. These role-players were all external influences as indicated in the following statements: '..my sister likes Barbie..' and '..because he lives in the sea..'.

It could therefore be argued that manufacturers should rather use a preferred colour if girls constitute the target and in contrast, a preferred graphic if boys were the target market when a choice had to be made in designing a cereal box's packaging. However, it was clear that the determining factor will always be a combination of colours and graphics in a harmonic manner.

CONCLUSION

The findings of this qualitative study were useful in gaining a more in-depth understanding of seven-year-old child consumers' perceptual preferences regarding the colour and graphical design of cereal boxes. Through this research a very clear picture of child consumers' preferences regarding cereal box packaging design was revealed

which manufacturers and marketers alike can use. Although the results of the boy consumers' perceptual preferences were not analysed separately from those of the girl consumers, some interesting contrasting observations were made, which may be investigated in further research.

With regard to the first objective there was no doubt that, boy consumers preferred their cereal boxes to be in either blue, red or green and girl consumers theirs in pink or purple. The colour brown was, according to a very convincing majority, the least preferred colour by both genders, indicating that the colour brown should be used with caution. Special care should be taken if a cereal is aimed at both genders as the target market, since the general stereotyping of pink being a 'girl's' colour was evident during the interviews. On the other hand, if a cereal product is specifically aimed at the girls' market there is little doubt that pink is preferred by the greater part. Personal factors featured as the most popular source of information when a choice of perceptually most preferred cereal box colours had to be made. Still, external factors such as colour qualities acted as the determining factor when a choice of perceptually least preferred graphics had to be made.

The second part of the first objective explored the seven-year-old child consumers' perceptual preferences regarding the graphics used on cereal boxes. Results revealed that the girl consumers perceptually preferred cereal boxes with softer, aesthetically pleasing characters (Barbie), whereas boy consumers favoured humorous, strong, aggressive characters with inhuman powers (Robin and Sponge Bob). The graphic of Barbie was favoured due to her feminine and beautiful appearance, exhibiting the girl consumers' longing to be like her. Simultaneously, the boy consumers favoured the graphics of Robin and Sponge Bob, for the same inherent reasons, namely a longing

to be as strong as the character and to be able to perform inhuman deeds. The child consumers' reasons for making specific perceptual choices with regard to cereal box graphics were also based on personal factors as well as the characters' qualities.

It could therefore be concluded that concerning the child consumer's perceptual preferences towards graphics, marketers and manufactures should focus on graphical characters from the nurturing, 'like me' and 'disidentification' categories. Emphasis should be on physically pleasing characters (nurturing) with positive personality traits (like me). Due to the child consumers' attraction to characters' inhuman abilities, the inclusion of characters with these qualities from the 'disidentification' category is important.

Data from the conceptualisation test (objective two) exhibited triangulation with the two association tests (objective one), regarding the child consumers' perceptually preferred colours and graphics. However, the most important finding illustrated was the phenomenon that regardless of boys' or girls' preferences, the determining factor was whether the background colour and graphic used on a cereal box would harmonise. This was clear in the child consumers' continued reference to 'specific parts' of the graphic 'fitting' the cereal box's colour. The data indicated triangulation, based on most and least preferred colours and graphics as well as the reasoning of choices made, evident between the different data collection methods, as outlined in the results.

The descriptive and exploratory nature of the study provided findings which manufacturers and marketers in the South African context can use in the design of cereal box packaging that could effectively attract the child as a consumer in a retail environment. It could be argued that the child consumer's cereal box shopping decisions

could be controlled to some extent, if the correct cereal box colour and graphics were to be combined. The study can be applied as basis to build further studies regarding the South African child as consumer, with special reference to behaviour and decision-making processes.

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CHAPTER 4

CONCLUDING DISCUSSION

CHAPTER 4

CONCLUDING DISCUSSION

4.1 Introduction

This chapter provides conclusions regarding the accomplishments concerning the research objectives and empirical findings of this study, as well as possible implications of this research for marketers and manufacturers alike. Special attention will be given to constraints experienced, limitations of the scope of the study and the significance of the research procedure followed. The research methods used will each be discussed individually. Furthermore recommendations to aid future research will be presented.

4.2 Conclusion

There is little doubt that the child as consumer is a primary market, who has a strong influence on their parents' shopping behaviour, and a future consumer force that should be reckoned with. However, this statement does not necessarily include the South African child as consumer. Research from the international scene to support this conclusion is in abundance. The present study investigated the question of whether the South African child as a consumer has certain perceptual preferences regarding cereal box packaging design, pertaining to colour and graphics used on this design. This was determined through the assortment of the child consumers' association and conceptualisation of colour and graphics.

Research with regard to the first objective, namely determining the association of seven-year-old child consumers regarding the colour and graphics of cereal box packaging design, with specific reference to their perceptual preferences of colour, revealed that child consumers have an undeniable preferred design idea for cereal box packaging. The boy consumers would prefer their cereal boxes to be in either blue, red or green and the girl consumers theirs in pink or purple. The child consumers' main reason for perceptually preferring these cereal box colours, was based on personal factors. The child consumers' least preferred colour was brown with the vast majority, attributing their choice to the colour's physical properties and its inability to be used as background

colour. Gender stereotyping was also evident, especially in the boy consumers' persistent aversion of the colour pink.

These findings illustrate that manufacturers and marketers should incorporate the colours blue, purple red and pink into their cereal box packaging, if they want to attract the child consumer's attention. More specifically the colour red seems to be a suitable choice for the packaging design of cereals if the preferences of both genders are to be accommodated. Furthermore, as far as possible, the use of the colour brown as background colour for the packaging design of cereal boxes should be avoided.

The second part of the first objective, aimed at determining whether seven-year-old children have specific perceptual preferences regarding the graphical design of cereal boxes' packaging design also revealed noteworthy results. Results indicated that the graphic of Barbie was the overall most preferred graphic. However, it is important to note that this is a result of more than half of the girl consumers perceptually preferring Barbie as their favourite compared to the boy consumers preferring the Robin and Sponge Bob graphics. The child consumers' reasons for choosing these specific characters included the graphic of Barbie's classical exhibition of femininity and beauty (nurturing category), the character of Robin's superhuman abilities (disidentification category) and Sponge Bob's humorous nature (like me category). Therefore focusing on graphical characters exhibiting the same qualities as these characters mentioned is recommended. It is concluded that if the marketers and manufacturers work with graphical characters from the 'nurturing', 'like me' and 'disidentification' category groups a positive cereal product choice might be induced.

Overall, the graphic of Matrix was the least preferred, particularly, by the majority of girls. This graphic's unpopularity is partly due to the character's violent behaviour. No specific character could be identified as the boys' least preferred. Participants' perceptually least preferred choices were mostly divided between the graphics of Barbie, a popular tennis player and Catwoman. Barbie was unpopular due to gender stereotyping. Thus it can be concluded that manufacturers and marketers should avoid characters eliciting gender stereotyping if both genders constitute the target market. Graphical characters exhibiting qualities from the 'emulation' category should be avoided, as well as characters with unpleasing appearances or violent behaviour.

As result of the second objective, the seven-year-olds' preferred combination of colour and graphics on their ideal cereal box was determined. Reasons for combining certain coloured boxes with specific graphics left no doubt that these participants were very sensitive towards the fact that background colour and graphics used, must harmonize. The colours generally preferred by the participants to be used on their ideal cereal box were purple, blue and pink / red. The boy consumers gave preference to blue, red and yellow / purple in contrast to the girl consumers' choice of purple, pink and green. These results triangulated with the results from the two association tests where the boy consumers also preferred the primary colours to be used on their cereal boxes and the girl consumers pink and purple.

The graphic of Barbie and Catwoman were the overall favourites to be used in the composition of their ideal cereal boxes due to the girl consumers' positive perceptions of these characters, while the boy consumers' perceptually preferred graphics consisted of Robin and Catwoman. These results triangulated with the results from those of the association test, namely the mock cereal box graphic shelve. However, it is noteworthy that the graphic of Sponge Bob did not feature as strongly in this activity compared to the other results. It is noteworthy that although this study was not initially planned to include gender differences, specific data exhibiting their unique perceptual preference variations could not be ignored.

4.3 Application of data

Regardless of the fact that this study was conducted in a qualitative manner and that the results could therefore not be generalised to the broader South African child population, marketers and manufacturers alike could still use the information as guidelines to design future cereal box packaging. This study opened the field of study with the behaviour of the South African child as consumer, allowing for more generally applied studies to follow.

4.4 Limitations and recommendations

This study was conducted by using a qualitative approach with a descriptive and exploratory nature. Due to these facts, the sample used consisted of a relatively small

number of seven-year-old child consumers The findings of the research can, therefore, not be considered as general consumer behaviour. It is recommended that the sample be enlarged and expanded into a quantitative survey that provides more representative data on a larger segment of the South African child consumer population. Such a study can benefit from the initial findings produced in this study by using it as a starting point for the conceptualisation and identification of relevant concepts.

Some aspects that were not addressed by the current study include issues such as the role that the trademark plays, as well as the importance association with the taste of the cereal. It is arguable whether the South African children as consumers will buy a cereal box in their favourite design as revealed in this study if the cereal is not according to their taste. All these aspects have to be tested as role players during their decision making as consumers. The researcher would also recommend some background studies regarding the South African child as consumer. These could include quantitative studies inquiring into the income at their disposal, behaviour during shopping trips made, socialisation as consumers and the influence exhibited on their parents' shopping behaviour. These aspects might bring interesting results to light, but were not part of the present study's objectives. Therefore, it is recommended that attention be given to these aspects during future research.

During the present study, data about the seven-year-old child consumer's perceptual preferences regarding the design of the colour and graphics were product specific. It is recommended that future research focus on other child specific products too. It could be valuable to see whether their perceptually preferred colours and graphics stay the same over different product categories. The researcher would also like to stretch the importance of acknowledging gender differences in child consumers. Although this study was not planned to include variations in boys' and girls' perceptual preferences, the data included a considerable amount of interesting differences. It can be concluded that it would be wise to allow for such differences in the planning of future studies.

4.5 Comments on the research procedure

This study made use of different qualitative data collection techniques. Recommendations and limitations regarding these techniques include the following:

4.5.1 Semi-structured interviews

The use of semi-structured interviews is recommended when the sample consists of children. In general, semi-structured interviews are used to gain more detailed information regarding the participants' perceptions and opinions; since it allows more flexibility and adjustment according to the individual children's needs. This is important to help to put the child at ease during the study procedure. As explained, the semi-structured interviews were used with two association tests and one conceptualisation test.

4.5.2 Association tests

The mock cereal box shelves served as illustrative probing techniques with the semi-structured interviews. These visual aids were especially useful with the children to help to keep their attention throughout every data collection activity. The mock cereal box colour shelf contained cereal boxes in eight plain colours. The mock cereal box graphic shelf contained twenty white cereal boxes each with a different graphic design pasted on it. The formulation of the instructions is very important to ensure that the correct information is obtained to answer the research problem.

Another important aspect that had to be planned very carefully was which colours and graphics to include in the study. Seen in the light that this was a basic qualitative study, aimed at exploring this unknown research field in a South African context, only the primary and secondary colours, as the most basic colours, were considered as a beginning, with pink and brown used as two additional colours. Pink was included as a seventh colour, mainly to test the relevance of gender stereotyping, namely blue is for boys and pink for girls. Due to the vast variety of graphics available, certain guidelines were needed to direct the choice of graphics included in the study. This study was built on the guidelines provided by Acuff & Reiher (1997). It is essential to remember that children tire easily, especially if too much information is presented at a time.

4.5.3 Conceptualization tests

As was the case with the association test, this visually induced technique proved to be very useful in getting rich data from the participants, stretching the importance of

including visual techniques when working with children. The test was conducted to establish how these children would combine colour and graphics to represent their ideal cereal box packaging design. The test was followed by a semi-structured interview to determine why the children chose specific elements during the activity. This proved to be very helpful during the data analysis stage.

4.6 Data analysis

The combination of creative data collection methods and the qualitative approach provided this study with a rich assortment of raw data. It is recommended that data analysis should be completed as soon as a specific set of data has been gathered. This way, information can be compared to field notes as soon as possible to indicate whether saturation has been reached. Furthermore, continual reviewing is advised to ensure that the date are explored for all possible contributions, especially if a large variety of data gathering activities had been used. It is advisable that data analysis be done in co ordination with other researchers. This is done to prevent the researcher to become numb to significant results and to ensure objectivity.

APPENDIX A

CONSENT FORMS PRESENTED TO PARTICIPANTS OF THE STUDY

YUNIBESITI YA BOKONE-BOPHIRIMA
NORTH WEST UNIVERSITY
NOORDWES UNIVERSITEIT

TITLE OF RESEARCH PROJECT:

Child consumers' perceptual preferences regarding the colour and graphics of cereal box packaging design

Dear Parent Date: 01/05/2005

I would like to take this opportunity to ask your permission to include your son/daughter in my research project.

AIM AND NATURE OF THE STUDY

The aim of this research project is to generate more in-depth knowledge regarding children's perceptions of colour and graphics. Semi-structured interviews will be used to address the above aim of the study. The growing importance of the role that children play in decision- and purchasing processes which influence parents to acquire certain products underlines the importance of further research. Knowledge gained in this regard would be of particular interest to the industry.

RESEARCH PROCEDURE

1. During the semi-structured interviews your son/daughter will be asked to participate in the following:
    - Association activities with colour and graphics
    - Shelves with cereal boxes of different colours
2. Each interview will be guided by a facilitator.
3. The interview allows your child the opportunity to voice his/her opinion about cereal box designs.
4. There are no correct or incorrect answers.
5. No preparation is required for the interview.
6. Your child's principal has been informed regarding the above. The principal's permission has been obtained for all the above described activities and appointments.

NOTICE OF RECORDINGS

It is brought to your attention that the interviews with your son/daughter will be recorded on a mini recorder to ensure that valuable information provided by your child is preserved and analysed within the appropriate context. After each interview the information will be transcribed to text. You have the right as parent to examine the transcribed text at any given time during the course and completion of the research project.

DECLARATION OF CONFIDENTIALITY

The opinion of your child is considered strictly confidential and therefore, other than yourself, only members of the research team will have access to the information. No data published in dissertations or journals will contain any particulars that could identify

your son/ daughter as participant in this study. Your son/ daughter's anonymity is therefore assured.

POSSIBLE BENEFITS DERIVED FROM THE STUDY

The information gained from these interviews can in future prove to be particularly useful to manufacturers in improving their packaging and enhancing their marketing appeal to their target population. More importantly though, this study can also ensure a better understanding of the South African child as a consumer and his/ her expectations with specific reference to cereal box packaging and design.

INFORMATION

Should you require more information, please feel free to contact, Sonna Visser, (Masters degree student) at 084 510 2130 or project leaders, Ms Nadine Sonnenberg at 018- 299 2478 and/ or Dr. Elizabeth Kempen at 018 299 2483.

WITHDRAWAL OF PARTICIPATION

I understand that my child's participation is voluntary and that he/ she can withdraw from the interview at any given point should he/she request to do so.

DECLARATION OF CONSENT

I, the undersigned _____ (Full names) read through the information provided about the research project and declare that I fully understand the content thereof. I was given the opportunity (if so preferred) to discuss any aspects of the project with the researchers and hereby allow my child to participate in the project.

I hereby grant permission that my child _____(Full names) may participate in the project.

I would hereby like to exempt the University or any employee or any student of the University from any liability which my child might incur during this project.

I furthermore waive my right to institute any claims whatsoever against the University which may arise during the running of the project or the conduct of any person involved in the project, except for claims arising from the negligent conduct of the University or its employees or students.

I received a signed copy of the consent form.

Signature of the parent:_____

Signed at _____ on _____

WITNESSES **DATE**

APPENDIX

1. _____
.....

2. _____
.....

Please complete

Demographic information

Full names of your child: _____

Surname:_____

Birth date: _____

Gender: _____

Race: _____

Home language:_____

Official use only: do not complete this part.

Number of this letter:_____

School: _____

YUNIBESITI YA BOKONE-BOPHIRIMA
NORTH WEST UNIVERSITY
NOORDWES UNIVERSITEIT

TITEL VAN NAVORSINGSPROJEK:

Kinderverbruikers se persepsiële voorkeure rakdende die kleur en grafika in ontbytgraanbokse se verpakking

Geagte Ouer Datum: 01/05/2005

Graag wil ek van die geleentheid gebruik maak om u toestemming te kry om u seun/dogter in te sluit by my navorsingsprojek.

DOEL EN AARD VAN DIE STUDIE

Die doel van hierdie navorsingsprojek is om meer in-diepte kennis te genereer rakende kinders se persepsies van kleur en grafika. Die studie maak gebruik van semi-gestruktureerde onderhoude om meer inligting rakende hierdie vraagstuk in te win. Die toenemende rol wat kinders speel in die besluitnemings- en aankoopprosesse waardeer hul ouers beïnvloed word om sekere aankope te maak, noodsaak verdere navorsing. Inligting verkry in hierdie verband kan veral met groot vrug deur die industrie gebruik word.

PROSEDURE VIR DIE NAVORSING

1. Gedurende die semi-gestruktureerde onderhoud sal u seun/dogter aan die volgende blootgestel word:
    a. Assosiasieaktiwiteite
    b. Rakke met verskillende gekleurde graankosbokse
    c. Verskeie prentjies

2. Elke onderhoud sal deur 'n fasiliteerder gelei word.
3. Die onderhoude is 'n geleentheid waar u kind sy/haar eie mening kan lig oor graankosbokse se ontwerp.
4. Daar is geen regte of verkeerde antwoorde nie.
5. Geen voorbereiding is nodig vir die onderhoude nie.
6. U seun/dogter se skoolhoof word geken in die saak. Alle afsprake en navorsingsmetodes word vooraf deur hom/haar goedgekeur.

VERWITTIG VAN BANDOPNAME

U word bewus gemaak van die feit dat die onderhoude met u seun/dogter op band opgeneem sal word om te verseker dat waardevolle inligting wat deur u kind gelewer word nie verlore gaan nie en die konteks van die inligting deeglik nagegaan kan word. Na afloop van die onderhoud sal die kassette getranskribeer word. U is enige tyd geregtig daarop om die teks van u seun/dogter se onderhoud deur te gaan.

VERKLARING t.o.v. KONFIDENSIALITEIT

Elke kind se mening word as streng vertroulik beskou en slegs lede van die navorsingspan sal toegang tot inligting hê. Geen data wat in skripsies en joernale

gepubliseer sal word sal enige inligting bevat wat u seun/dogter sal identifiseer nie. U seun/dogter se anonimiteit word dus verseker.

MOONTLIKE VOORDELE VAN DIE STUDIE

Die inligting wat ingewin word deur middel van die onderhoude kan met groot vrug deur vervaardigers gebruik word om toekomstige verpakking en bemarking aan hulle teikengroepe te vergemaklik. Die studie kan ook lei tot 'n beter begrip van die Suid Afrikaanse kind as verbruik se behoeftes en verwagtings ten opsigte van graankosprodukte.

INLIGTING

Indien ek enige vrae oor die betrokke studie het, mag ek die Meestersgraadstudent Sonna Visser (084 510 2130) of haar studieleiers Nadine Sonnenberg (018- 299 2478) en Dr Kempen (018 299 2483) kontak.

ONTREKKINGSKLOUSULE

Ek verstaan dat my kind ter enige tyd aan die onderhoud mag onttrek. Hy/Sy neem dus vrywillig deel totdat hy/sy anders versoek.

VERKLARING VAN TOESTEMMING VERLEEN

Ek, die ondergetekende _____
(volle name)
het die voorafgaande gegewens in verband met die projek gelees en ek verklaar dat ek dit verstaan. Ek was die geleentheid gegun (indien ek so sou verkies het) om tersaaklike aspekte van die projek met die studieleier te bespreek en ek verklaar hiermee dat ek my kind vrywilliglik aan die projek laat deelneem.

Ek gee hiermee my toestemming dat my kind _____(volle name) as deelnemer in bogenoemde projek mag op tree.

Ek vrywaar hiermee die Universiteit asook enige werknemer of student van die Universiteit, teen enige aanspreeklikheid wat teenoor my kind, in die loop van die projek mag ontstaan.

Ek onderneem verder om geen eise teen die Universiteit in te stel weens skade of persoonlikheidsnadeel wat my kind weens die projek/proef of die toedoen van ander proefpersone mag ly nie, tensy dit aan die nalatigheid van die Universiteit, sy werknemers of studente te wyte is.

Ek het 'n getekende kopie van hierdie toestemmingsooreenkoms ontvang.

Handtekening van ouer: _____

Onderteken te _____ op _____

GETUIES **DATUM**

7. _____

8. _____

Vul asseblief hierdie gedeelte in

Demografiese inligting van my seun/dogter:

Volle name: _____

Van: _____

Geboortedatum: _____

Geslag: _____

Bevolkingsgroep: _____

Huistaal: _____

Amptelik : U vul nie hierdie gedeelte in nie. Dit is vir amptelike gebruik

Nommer van brief: _____

Skool:_____

APPENDIX B

SEMI-STRUCTURED INTERVIEW GUIDE

INTERVIEW GUIDE

(Ruane, 2005):

Introductory comments made by interviewer

Hallo XXX

Welcome, would you like to play a game with me?

List of question to be presented at each data collection method:

- Association test 1:Mock cereal box colour shelve:

Would you please show me you favourite box?

Why did you choose that box?

Show me the box that you don't like.

Why don't you like that box?

- Association test 2: Mock cereal box graphic shelf:

Would you please show me your favourite box?

Why did you choose that box?

Show me the box that you don't like.

Why don't you like that box?

- Conceptualisation test:

If you had the opportunity to show the people at the shops what a cereal box should look like, which picture and colour would you use? Will you please make me an example of such a box?

Why did you use that colour?

Why did you use that picture?

APPENDIX C

DATA REFLECTING CHILDREN CONSUMERS' REASONS FOR PERCEPTUALLY PREFERING SPECIFIC COLOURS ON CEREAL BOX PACKAGING DESIGN

Table 1: Reasons why seven-year-old children perceptually preferred specific colours:

Concept	Sub concept	Participants' statements
Child's preference based on personal qualities	Emotional motivation based on favourites and best	1. '...my favourite colour...' - , , green, orange 2. '..blue is actually my favourite colour..' - blue 3. '..it's my best colour..' - , pink, red
	Personal approval of colour as being liked	1. '..I like it..' - blue 2. '..because I like blue..' - blue 3. '..because I like pink..' - pink 4. '..I like to draw in red..' - red
	Gender stereotyping	1. '..it's a boys colour..' - blue 2. '..cause it's a blue, it's for boys..' - blue
	Parental socialisation	1. '..my mommy always tells me I should colour pink or blue..' - pink
	Personal association	1. '..I have a dolphin room and it is blue..' - blue 2. '..I wear pink everyday..' - pink
Child's preference based on the colour's qualities	Overall evaluation of colour quality	1. '..because it is a very pretty colour..' - brown 2. '..because it is the prettiest..' - red, green 3. '..it looks pretty..' - red, puple
	Intensity and value qualities	1. ..because it's dark red..' - red 2. '..because the colour is bright..' - pink 3. '..he is shining..' - red 4. '..to me it is shiny and pretty..' - brown

APPENDIX

Table 2: Reasons why seven-year-old children did not perceptually prefer specific colours:

Concept	Sub concept	Participants' statements
Child's perceptual dislike based on personal qualities	Emotional motivation based on personal dislike	1. '..I don't like that colour..' - 2. '..I don't like brown..' - brown 3. '..I hate brown..' - brown
	Gender stereotyping	1. '..it's a girls colour..' - pink 2. '..pink is a girls colour..' - pink
Child's perceptual dislike based on the colour's qualities	Colour is aesthetically unappealing	1. '..it isn't pretty..' - brown 2. '..not a pretty colour..' - 3. '..for me it isn't pretty..' - blue
	Negative intensity and value qualities	1. '..it's not a pretty light colour..' - brown 2. '..it's too dark..' - brown 3. '..it's dark and I hate dark colours..' - brown 4. '..it's a dark colour..' - brown 5. '..because it's not that bright..' - 6. '..because it's light..' - pink 7. '..it's too light..' - orange
	Inadequacy of the colour to serve as cereal box colouring	1. '..he can't make a pretty colour on a cereal box..' - orange
	Negative association with other elements	1. '..it looks like black..' - brown 2. '..it's as green as grass..' - green 3. '..it's too brown, some kids are going to laugh at my lunchbox..' - brown 4. '..it looks like mud..' - brown
	Poor potential for	1. '..if you draw a picture on it, it would

APPENDIX

	use as background colour	display nicely..' - brown 2. '..because you can't draw bright colours on it..' - orange 3. '..it doesn't seem like you can draw with pretty colours on it..' -
Child's perceptual dislike based on the box's qualiies		1. '..it's not painted nicely..' - brown 2. '..it doesn't have brown on the top..' - brown 3. '..it isn't covered nicely and it has circles and stripes and stuff..' - orange

APPENDIX D

DATA REFLECTING CHILDREN CONSUMERS' REASONS FOR PREFERRING SPECIFIC GRAPHICS ON CEREAL BOX PACKAGING DESIGN

Table 1: Reasons why seven-year-old child consumer's perceptually preferred specific graphics

Concept	Sub concept	Participants' statements	Graphical category
Child's perceptual preference based on the character's qualities	Preference based on appearance	1. '..because he is pretty..' - Barbie 2. '..she is pretty..' - Barbie 3. '..they look kind of cute..' - Robots	Nurturing
	Preference based on personality traits	1. '..because he is cute..' - Sponge Bob 2. ' '..he is funny..' - Sponge Bob 3. '..he is very aggressive..' - 4. '..he makes jokes..' - Sponge Bob	Like me
	Preference based on inhuman ability	1. '..she can jump around and the buildings..' - 2. '..because the one can fly and the other one can press his hand into peoples' stomachs and have guns..' - 3. '..because it is two superheroes..' - 4. '..can blow up with water..' - Sponge Bob	
Child's	Preference	1. '..because it is of lions..'	Nurturing

perceptual preference based on specific elements present in the graphics	based on the presence of a main element	- Lion King 2. '..it' s my favourite animal..' - 3. '..barbie is my favourite..' - Barbie 4. '..it's about lions..' - Lion King 5. '..I like cricket..' - Cricket	
	Preference based on the overall colour used on the graphic	1. '..because he is pink and purple and different colours..' - Barbie 2. '..it's colourful..' - Barbie, Nemo	Nurturing
	Preference based on the overall appearance of the graphic	1. '..it's a pretty picture..' - Lion King 2. '..because I like the picture..' - Little Mermaid	
Child's perceptual preference based on specific predetermined ideas	Preference based on gender stereotyping	1. '..it's girls' stuff..' - Barbie 2. '..because they are girls..' - Barbie 3. '..it's a girl's picture..' - Barbie 4. 'it's gun is not for ladies it's like for men and boys..' -	Nurturing
Child's preference based on a existing movie	Preference based on a movie seen once	1. '..I saw the movie..' - Lion King 2. '..because I saw the DVD..' - Nemo	Nurturing and Like me

	Preference based on the fact the a movie is seen on a continuous basis	1. '..because I like to watch it..' - 2. '..I watch it everyday..' - Shrek	Like me
	Preference based on a wish to see the movie	1. '..because I would like to see the movie..' - Robots	

Table 2: Reasons why seven-year-old child consumer's did not perceptually preferre specific graphics

Concept	Sub concept	Participants' statements	Graphical category
Child's dislike based on personal factors		1. '..because I don't like it..' - 2. '..I don't like that one..' - Robots	Like me and
Child's dislike based on the presence of specific graphic quality		1. '..I don't like black..' - 2. '..I don't like guns..' -	
Child's dislike based on a strong dislike towards sport	Feelings towards sport	1. '..because I hate tennis..' - Tennis 2. '..I don't like tennis..' - Tennis 3. '..I don't like cricket..' - Cricket 4. '..because it is soccer..' - Soccer	Emulation
Child's dislike based on specific predetermined ideas	Dislike based on gender stereotyping from a boy's perspective	1. '..because it is for a girl..' - Barbie 2. '..it's girl stuff..' - Barbie	Nurturing
	Dislike based on gender stereotyping from a girl's	1. '..it's for boys..' - Robots 2. '..because it is boys..' - 3. '..it's like boys..' -	Like me, and

	perspective	Cricket	Emulation
Child's dislike based on a existing movie they've seen		1. '..when all the cats come and then she becomes catwoman..' - 2. '..because we are not allowed to watch it, it is not nice..' -	
Child's dislike based on the graphic's appearance as a whole		1. '..doesn't look nice..' - 2. '..it's ugly..' - 3. '..he is not the prettiest..' - Tennis 4. '..it's not pretty..' - Robots	
Child's dislike based on the character's qualities	Dislike based on appearance	1. '..because he is bald headed and has black clothes and guns..' - 2. '..because she wears a black thing..' - 3. '..he looks scary..' - 4. '..because he's fat and not clean..' - Shrek 5. '..he is ugly..' - 6. '..he is bald headed..' -	
	Dislike based on negative actions	1. '..he always fights against guys..' - 2. '..because he shoots the guys..' -	

APPENDIX E

DATA REFLECTING CHILDREN CONSUMERS' COMBINATION OF COLOURS AND GRAPHICS OF THEIR IDEAL CEREAL BOX DESIGN

Table 1: Reasons why seven-year-old child consumers perceptually preferred to combine specific colours with specific graphics in a composition of their ideal cereal box

Concept	Sub concept	Participants' statements
Child's perceptual preference based on personal qualities	Child's personal persistence	1. '..because I always want it on the orange box..' 2. '..I want him there..'
Child's perceptual preference based on the relation between the graphic and coloured box	Specific parts are the same	1. '..the lion's yellow goes with the box..' 2. '..because her nails are brownish..' 3. '..because it is the colour of the flowers..' 4. '..her tail is green..'
	Different parts fit together	1. '..it goes a little with it..' 2. '..because it fits..'
	The overall appearance is pleasing	1. '.because it looks pretty together..' 2. '..because it will look pretty..' 3. '..it looks nice..' 4. '..it looks pretty..' 5. '..it's very nice to look at..' 6. '..he would look pretty on it..'
Child's perceptual preference based on the colour's qualities	Colour's intensity and value	1. '..because orange is nice and bright..' 2. '..green is bright like orange..'
	Child's personal	1. '..blue and green is my favourite colour..'

	favouring of the colour	2. '..I like red..' 3. '..pink is my best colour..' 4. '..because I like pink and purple..'
Child's perceptual preference based on the graphics qualities	Graphics appearance	1. '..he is the prettiest..' 2. '..also the prettiest..' 3. '..his face is pretty..'
Other roleplayers		1. '..my sister likes Barbie..' 2. '..because they win money..' 3. '..because he lives in the sea..' 4. '..because they are in love..' 5. '..then you can put nice green cereal in the box..'

APPENDIX F

JOURNAL OF RETAILING
MANUSCRIPT GUIDELINES

JOURNAL OF RETAILING

Manuscript Evaluation Criteria

Papers submitted to JR will be evaluated on its expected contribution to retailing and related topics as outlined in the JR Mission. We will attempt to balance our assessment of a manuscript's contribution versus its length when directing revisions. Submitting authors should carefully examine previous issues of JR for format and style. Relevant literature on the topic, particularly research previously published in JR, should be cited.

We would like to explicitly encourage manuscripts that integrate both multiple research topics and multiple methods. For example, a study may examine the role of inventory levels in a retail store and their effects on perceived stock-outs, customer satisfaction and store image (multiple research topics. This research may utilize an analytical model that is tested using survey and experimental data (multiple methods).

The literature on retailing-related topics is rich. Yet, there have been very few published replications and, as a result, even fewer meta-analyses. We encourage significant replications, and meta-analyses. There are two areas where a replication may be of interest to JR. The first is where a replication finds different results and can correct prior findings. The second is where the initial study has findings that are so counter to accepted theory that replications are needed in order to insure that the first findings were not due to error or random chance. A replication whose fundamental contribution is the use of a different sample is less likely to be viewed as a significant contribution.

By performing meta-analyses, authors should explicitly synthesize the findings of the

new study with the original on both qualitative and quantitative issues. The quantitative synthesis should explicitly compare the effect size of the studies (cf. Fern and Monroe 1996 and Rosenthal and Rosnow 1984). By so doing, differences in findings could be attributed to variations in method, sample, substantive domain, etc. If such reporting becomes standard practice, it will enhance the ability to do meta-analyses. We believe that such studies could result in a synthesis of research streams and indicate crucial gaps requiring further exploration. Prospective authors are cautioned, however, that replications and meta-analyses must provide fresh knowledge. Unlike in Hollywood, remakes won't fly.

Research published in JR should clearly justify the relevance of the sample used vis a vis research objectives. There has been a rich debate on the issue of student versus non-student sample (see Calder and Tybout 1999; Calder et al. 1981, 1982, Lynch 1999, 1982). We believe that both sample types are appropriate under certain circumstances. For instance, student samples may be appropriate for theoretical research where the results can be generalized to a broader population. Students would not be appropriate when used for the convenience of the researchers. We expect to see and encourage the use of online samples drawn from appropriate frames. The technology is readily available. Respondents appear to be particularly receptive to this media. Finally, online samples are particularly appropriate for studying e-tailing issues.

Publication Format

In preparing the manuscript for submission, the following format should be followed. All text should be double spaced.

Title Page:

The title page should include the name, title, institutional affiliation, address, phone number, and e-mail address of each author. The date of the manuscript and any acknowledgments should appear on this page.

Abstract:

The title of the manuscript and a 100-word summary summarizing the article should begin the numbered pages (page 1). Be sure to eliminate all author names on this page.

Text:

This page will be numbered two and the main text begins here. A brief orientation to the focus and intended contribution of your study should introduce your paper. Standard articles should be no longer than 40 pages in length; notes should be no more than 20, including references and graphics. Manuscripts over 50 pages in length may be immediately returned to authors for trimming.

Headings:

Primary headings are centered in upper case. Secondary headings are flush left in upper and lower case. With the exception of initial paragraphs in primary sections, the first line of each paragraph should be indented.

Style:

A concise style and minimal redundancy together enhance presentations. An emphasis upon the active tense is preferred. Issues set forth in literature review or methodology sections should be referenced subsequently only in abbreviated form. Data presented in a table or figure need not be described in detail within the text.

Equations:

Special care should be taken in the presentation of equations, the capitalization and italicization of algebraic symbols in order to be clear to the typesetter. Equations should be numbered with its number in parenthesis on the far left. The equation itself should be center adjusted.

Spelling:

The manuscript should be subjected to both computer based grammatical and spelling review. Where spelling and hyphenation is optional, be consistent. Avoid the use of such expressions as operationalize and generalizability. Spell out numbers one through twenty in the text as well as the word percent.

References:

Reference citations should be placed in the text and consist of the cited author's last name and the year of publication, enclosed in parentheses, and without punctuation, for example (Hendon 1989). If the author's name appears in the sentence, only the year of publication should appear in parentheses, for example:

"...as suggested by Markin, Lillis, and Narayana (1976)."

References to multiple works should occur within one set of parentheses, separated by semicolons, as in:

(Mathis and Jackson 1979; Megginson 1985; Hershey 1971)

Where possible, references should appear immediately before a punctuation mark.

Reference List:

The list of references begins on a separate page and double-spaced. The first line of each entry is even with the left margin and subsequent lines are indented

five spaces. Sort references by the first author's last name; multiple papers by the same author should be listed in chronological order. Use the examples below as a guide to reference style.

1. Book:
   Levy, Michael and Barton Weitz (2004), *Retailing Management,* fifth ed. Boston, MA: Mcgraw Hill/Irwin.

2. Journal Articles:
   Levy, Michael, Dhruv Grewal, Robert A. Peterson and Bob Connolly (2005), "The Concept of the Big Middle," *Journal of Retailing.* 81 (2). 83-88.

3. Book Chapter:
   Parasuraman, A., Dhruv Grewal and R. Krishnan (2004), "Primary-Data Collection," in *Marketing Research,* Boston, MA: Houghton Mifflin Company, 156-192.

4. Conference Proceedings Paper:
   Westbrook, R. A. and Richard Oliver (1980), "Developing Better Measures of Consumer Satisfaction: Some Preliminary Results," in *Advances in Consumer Research,* IX (A), Kent Monroe ed. Ann Arbor, MI: Association for Consumer Research.

5. Unpublished Work or Working Paper:
   Rein, Martin and S. M. Miller (April 30, 1984), "The Demonstration Project as a Strategy of Change, Mobilization for Youth Training Institute Workshop," Columbia University.

6. Websites:

Levy, Michael and Dhruv Grewal (2004), "Publication Format," (accessed July 15, 2004),

[available at http://.babson.edu/Publications/JR/publicationformat.cfm].

Footnotes:

Footnotes should be used sparingly and only for the purpose of extending or clarifying the main text with respect to an interesting, but somewhat tangential topic. Otherwise, the material should be included in the main text. Footnotes, numbered consecutively throughout the manuscript, should be typed, doubled spaced, and attached as a separate page.

Tables and Figures:

Each table and figure is numbered consecutively in Arabic numerals and referred to by this number when discussing it in the text. The title should be centered and in upper and lower case. Table footnotes should be indicated by a, b, c, and so forth. Tables should be limited in size while still serving the purpose of the authors. Where used, it should be as simple as possible. For example, it usually is not necessary to include both frequencies and percentages. Numerous statistical findings, such as means, t-scores, significance symbols of other sorts, are best relegated to the tables.

Graphics:

Authors are responsible for completing professional-looking graphics. For materials such as graphs, charts, line drawings, or illustrations, we prefer that authors provide camera-ready copy. You may obtain such copy using suitable office suite programs such as Power Point and a clean, 600-dpi printer and the use of a lightly coated paper. The preparation of graphics by use of simple symbols available on word processors produces inadequate results. If you do not wish to submit camera-ready copy, a separate graphic file written in either EPS

(encapsulated postscript), tiff (tagged image file format) or ps (PostScript) file may be submitted. A print from a graphics file must still be provided.

Final manuscript:

If a manuscript is accepted for publication, authors should send their final version electronically. These manuscripts must double-spaced to fit 8 x 11-inch paper using one-inch margins on all sides, and 12-point type. The electronic document must be in Microsoft Word or WordPerfect in Windows format. Submitted manuscripts must not exceed 50 pages in total length.

Executive Summary:

Authors must also provide an executive summary. However, this need not be included with the initial submission. This summary serves as an extended abstract for readers who wish to gain the flavor of an article prior to investing additional time in reading it. The review should highlight the major contributions of the article in an easily readable manner. The summary is ideally suited to point out interesting managerial, policy or social implications not touched upon within the main text. Executive summaries for all articles are printed at the front of the issue and will also appear on the journal's web page. They should be about two or three manuscript pages long.

DANKBETUIGINGS

Wanneer 'n mens terugkyk aan die einde van so 'n projek is daar so baie wat 'n mens se gemoed vol lê en tog so beskamend min woorde wat werklik die gevoel kan weergee.

My Meestersgraad het begin as 'n voltydse studie wat, met die wil van die Here, beplan was om binne 'n jaar klaar te maak. 'n Mens se planne is egter nie God se planne nie. Sy plan vir my vir 2005 het die groot voorreg van 'n permanente dosentpos by Verbruikerswetenskappe op die Potchefstroomkampus ingesluit. Die gevolg was natuurlik dat ek die inhandiging van hierdie skripsie moes uitstel (enige opregte dosent sal dadelik vir jou sê dat jou studente altyd eerste kom).

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Ek kom vandag in nederige dankbaarheid na U toe om U in menslike swakheid te bedank vir U onverdiende krag en genade wat my gedra tot by nog 'n groot mylpaal in my lewe.

Dankie vir ouers in my lewe wat my geleer het van U, ouers wat agter my staan met raad en gebede om my te lei deur die kronkels en duike op ons aardse pad. U weet wat dit van hulle gevra het om my, my boetie en sussies tot hier te dra. Vou hulle in U liefde toe, soos wat U nog altyd gedoen het en bewaar hulle veilig in U vaderhand.

Here, ek wil graag die spesiale mense wat U as studieleiers vir my gekies het vandag aan U opdra. Dankie dat U altyd die beste weet vir ons lewens, ook in die keuse van mense soos Nadine Sonnenberg en Dr Elizabeth Kempen wat so 'n belangrike rol in die vorming van my as navorser gespeel het. Dankie dat U hulle die nodige krag en geduld geskenk het om my dag vir dag te motiveer en te inspireer.

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Dankie dat ek met vertroue in U volgehoue versorging in ons almal se lewens kan glo en dat ek kan glo dat U wil in ons lewens vir ons die beste is.
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CHILD CONSUMERS' PERCEPTION OF COLOUR AND GRAPHICS IN CEREAL BOX PACKAGING DESIGN

Literature addressing South African children as consumers is limited. Considering the growing importance of this young emerging market, a study addressing some aspects of the South African child as a consumer might provide valuable information and guidelines to marketers and manufacturers, in particular, a way to attract these young consumers' attention to products that will possibly better serve their needs. Colour and graphics can be highlighted as a method to reach these consumers. This can be attributed to the fact that children between the ages of three and seven years are within the preoperational stage of cognitive development and their attention is consequently fixed on only one stimulus at a time, for instance, the colour and/or graphics. Cereal is a widely acclaimed children's product of which a wide variety is available on the shelves of South African grocery outlets. However, the extent to which South African children belonging to this age group are influenced by these claimed colour and graphics is debatable. Based on these arguments the present study was driven by the question whether seven-year-old child consumers have definite colour and graphical perceptual preferences regarding the packaging design of cereal products.

An exploratory investigation was conducted within a South African context to meet the following objectives, to determine firstly, the association of seven-year-old children regarding colour and graphics of cereal box packaging by exploring the perceptually preferred colours and graphics in cereal box packaging. Secondly, to determine the conceptualisation of seven-year-old children regarding colour and graphics of cereal box packaging design through the composition of an ideal cereal box. Findings of this qualitative study confirmed existing perceptual preferences among child consumers that should be taken into consideration by manufacturers and marketers. Results included a tendency under child consumers to focus on personal factors when perceptually most preferred cereal box colour and graphic choices were made. This was in contrast with colour and graphical character qualities being the main criteria when perceptually least preferred cereal box design choices had to be made. It is evident that manufacturers should focus on softer, aesthetically pleasing characters on an either pink or purple background when girls are the target market, whereas boys would favour humorous, strong, aggressive characters on a background of any of the primary colours. Most significant, was regardless of their preferred colour and graphics, the most important factor was their pre-occupation with matching graphics to the background colours of the packaging. Manufacturers and marketers can use this information to package their products to be as child consumer friendly as possible, which could result in a favourable perception of and behaviour towards the trademark well into adulthood.

KINDERVERBRUIKERS SE PERSEPSIE VAN DIE KLEUR EN GRAFIKA OP GRAANKOSVERPAKKING ONTWERP

Literatuur wat handel oor die Suid-Afrikaanse kind as verbruiker is uiters beperk. Wanneer die steeds groeiende belang van hierdie nuwe jong mark in ag geneem word, kan die noodsaak van 'n studie wat spesifiek handel oor die Suid-Afrikaanse kind as verbruiker nie misken word nie. So 'n studie kan 'n metode om hierdie jong verbruikers se aandag te trek na produkte wat in hulle behoeftes kan voldoen, verskaf. Kleur en grafika kan beklemtoon word as effektiewe metode om hierdie verbruikers te bereik. Die belangrikste rede hiervoor is dat kinders tussen die ouderdomme van drie en sewe in die pre-operasionele stadium van kognitiewe ontwikkeling is. Hulle aandag word dus op net een stimulus op 'n slag gefokus, byvoorbeeld die kleur en grafika wat gebruik word op die graankosverpakking. Graankos word regoor die wêreld geklassifiseer as produk wat onder andere spesifiek gerig is op die kindermark en is vrylik beskikbaar op die Suid-Afrikaanse kruidenierswarehandelaars se rakke. Die mate waartoe die Suid-Afrikaanse kind as verbruiker egter beïnvloed word deur hierdie aspekte is nie so duidelik nie. Gebaseer op die bogenoemde argumente word hierdie navorsingsprojek dus gedryf deur die vraag of sewejarige kinderverbruikers 'n definitiewe persepsiële kleur en grafiese voorkeur het rakende die ontwerp van die verpakking van graankos.

'n Verkennende studie is in die Suid-Afrikaanse konteks uitgevoer om die volgende doelwitte te bereik, naamlik om die assosiasie van sewejarige kinders met die kleur en grafieke van graankosverpakking te bepaal deur die persepsiële voorkeure ten opsigte van kleur en grafieke in graankosbokse se verpakking te ondersoek, asook om die konsepsialisering van sewejarige kinders ten opsigte van die kleur en grafika van graankosverpakking te bepaal deur die samestelling van 'n ideale graankosboks. Resultate van hierdie kwalitatiewe studie beklemtoon die bestaan van spesifieke persepsiële voorkeure onder kinderverbruikers. Data het die geneigdheid om te fokus op persoonlike faktore wanneer persepsiële voorkeure uitgewys moes word, ingesluit. Dit was in teenstelling met die geneigdheid om kleur en grafiese karakters se kwaliteite as kriteria te gebruik wanneer persepsiële afkeure uitgewys moes word. Dit was duidelik dat vervaardigers moet fokus op sagter, esteties aanvaarbare karakters op pienk of pers agtergrond wanneer meisies die teiken is en op snaakse, sterk en aggressiewe karakters op enige van die primêre kleure as seuntjies ter sprake kom. Hulle dring egter daarop aan dat die grafiese gebruik en die agtergrondkleur van die boks moet harmonieer. Hierdie inligitng kan effektief deur vervaardigers en bemarkers gebruik word om die nuwe jong kinderverbruikersmark te bereik.

TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

CHAPTER 1

CHAPTER 2

CHAPTER 3

LIST OF APPENDICES