

Principles for Engaging Learners in the Construction of School Newspapers

by

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Summary

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It is imperative that learners leave school with a certain set of core skills, none as important as communication and technology literacy, a key driver for future workplace employment. The critical question is how to motivate pupils to participate in an interesting, challenging and creative project to improve essential communication techniques and capabilities? The rationale of the study is to enable future editors of school newspapers to create a similar environment in which the learners that are members of the editorial team will be involved in the construction of a school newspaper. The rationale of the study relating to the learners, who are part of the editorial team, is to develop 21st Century Skills and therefore enable them to overcome complicated demands that they are exposed to in the Knowledge Age.

This dissertation presents a real-life, initiative to encourage active participation in the construction of a school newspaper that will develop learners' skills and confidence and improve their oral, written and multi-media communication. The findings of this dissertation aim to prove that the group production of a school newspaper can enhance learners' ability to participate and communicate in a group environment and equip them with essential 21st Century skills.

Keywords: School Newspaper, Editorial Team, Constructing, Active Participation, Knowledge Age, Oral Communication, Written Communication, Multi-Media Communication, Inter-Personal Skills, 21st Century skills.

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Chapter 1

Introduction

1.1 Introduction

This chapter provides the motivation behind the study, and an overview of the study.

The 21st century is challenging and reshuffling the very foundations of our society in new and numerous ways. The reasons are the widespread advances in technology and communications, booming economic expansions and increased competition as well as the increase of global challenges from financial meltdowns to global warming (Karoly & Panis, 2004, p. 301). The world of the Knowledge Age business therefore requires a new mix of skills (Trilling & Fadel, 2009). The result of this requirement is that there is no longer a detailed career path for learners to follow. By implication, the workforce demands a different set of skills an individual requires to perform adequately in the 21st century (Hughes, 2011). In view of this, the rising demand from businesses for graduating students to be equipped with 21st Century Skills, are a sign of the gap that exist between the workforce and education (Jun, 2009, p. 764).

One of education's principal roles is to prepare future workers and citizens to deal with the challenges of their times (Kharbach, 2011). Education systems also need to adapt to changes in the larger context too, as new contexts require new skills for economic survival. But to have expert knowledge workers, every country needs an education system that produces them. Education becomes the key to economic survival in the 21st century. This underlines the importance that learners need to be equipped with 21st Century Skills. In view of this, educators have the important task of equipping learners with these skills at school. This implies that educators need to have sufficient knowledge of these skills and how to integrate the development of these skills into the curriculum (Churches, 2009). However, research has shown that educators have limited knowledge on what 21st Century Skills are and how to integrate it into the educational curriculum (Kharbach, 2011).

A 21st century education includes knowledge of traditional fundamental subjects, but also accents present-day themes such as global awareness etcetera (Trilling & Fadel, 2009). As a result, educators need to integrate 21st Century Skills into the educational curriculum. Learners in the 21st century will then be able to apply their knowledge to understanding and solving real-world problems by using their 21st Century Skills, namely:

- Learning and Innovation Skills
- Digital Literacy Skills
- Career and Life Skills

In order to successfully incorporate the 21st Century Skills into the current educational curriculum, the researcher had to find a suitable tool. The researcher decided to investigate whether a school newspaper framework or curriculum exists in schools that would ensure the participation of learners in the daily running of such a paper and whether participants are being equipped with the necessary 21st Century Skills. The construction of school newspapers enables learners to work individually, conduct clever research and work in partnership with other learners (Wojcicki, 2011). As a result, the construction of a school newspaper develops learners' teamwork, collaboration, problem-solving and self-control skills. A link can be established between 21st Century Skills and the skills learners will obtain when constructing a school newspapers.

The next paragraph broadens the discussion to include the educational value of school newspapers.

1.2 The educational value of school newspapers

Numerous people that currently work in the media profession initially started off by writing for school or university newspapers. Strainic (2007, p. 6) explains that school journalism programs contains numerous advantages. Some of these advantages are:

- The “development of writing skills” (ibid).
- “Higher ACT scores” (American College Testing) (ibid).
- Well prepared learners for “university journalism programs” (ibid).

Table 1.1, explores in more detail the educational value of school newspapers.

Table 1.1: Educational value of school newspapers

Authors	The educational value
Wilds (as cited by Konkle (2004, p. 10))	“Students must be incensed with a desire to search, to experiment, until some degree of satisfaction is obtained. Newspaper work gives a motive where the regular composition class often has the unnatural motive “class room credit” overhead” (Konkle, 2004, p. 10).
Hater (as cited by Konkle (2004, p. 11))	“... the newspaper provides an outlet for pupils of various interest (newspaper tasks) offer work to people of many abilities and desires, and the training received is often more usable in later life than that secured in the classroom” (Konkle, 2004, p. 11).

Table 1.1: Educational value of school newspapers (continued)

Authors	The educational value
Poole (as cited by Konkle (2004, p. 11))	“The (Newspaper) is a really original production of the students, for the students, and by the students, under the guidance of a competent teacher. Educators should realise that it is an educative agency, a laboratory production, a means to an end, and as such deserves their moral and financial support” (Konkle, 2004, p. 11).
Brown (as cited by Konkle (2004, p. 11))	That newspapers should be viewed as an important “education experience in two fronts: The publication of the school newspaper, both as tool with which to vitalize the teaching of composition and as a medium for citizenship training, has come to be recognized as an invaluable project in the secondary school of technology” (Konkle, 2004, p. 11).
Harvey (as cited by Konkle (2004, p. 14))	“The school newspaper is an effective tool for social education. It is especially valuable here when regular issues are supplemented from time to time with special editions featuring themes, topics, or problems of significance to the school community ... Special editions have been exceedingly successful from the point of view of social education ...” (Konkle, 2004, p. 14).

According to BBC News (2003) the construction of a school newspaper allows learners to gain knowledge of “the different jobs involved” when constructing a school newspaper and also opens the way to possible career opportunities. A school newspaper “can also make your school a better place” (ibid).

School newspaper programs enable learners to “work independently, do intelligent research and collaborate effectively in person” (Wojcicki, 2011). Learners are taught “real-world skills” such as teamwork, collaboration, problem-solving and self-control (ibid). These learners will attain the values of “freedom, respect, trust and high expectations – values crucial to achieving success in the Knowledge Age (ibid). Table 1.2 provides the skills a learner may develop during the construction of a school newspaper.

Table 1.2: The skills developed during the construction of a school newspaper

Authors	Skills
Pal (2011).	<ul style="list-style-type: none"> • Interviewing skills (Pal, 2011). • Analytical skills (ibid). • Document analysis (ibid). • Accuracy (ibid). • Avoiding conflict of interest (ibid). • Writing skills (ibid). • Planning skills (ibid).

Table 1.2: The skills developed during the construction of a school newspaper (continued)

Authors	Skills
Rusnak (2010).	<ul style="list-style-type: none"> • Be familiar with “journalistic terms and vocabulary” (Rusnak, 2010). • Recognize “the structure of news articles” (ibid). • Create and “publish written work” by employing suitable technology (ibid). • Evaluate and review “the information and ideas” collected from a “variety of print and electronic sources” (ibid). • Improve “keyboarding skills” (ibid). • Acquire “peer editing and proofreading skills” (ibid).
The Editors’ Association of Canada (n.d.).	<ul style="list-style-type: none"> • “Development/Project editing” (The Editors’ Association of Canada,n.d.) • “Fact checking/Reference checking” (ibid). • “Indexing” (ibid). • “Substantive or Structural editing” (ibid). • “Mark-up/Coding” (ibid). • “Stylistic editing” (ibid). • “Proofreading” (ibid). • “Rewriting” (ibid). • “Copy editing” (ibid). • “Mock-up (Rough Paste-up)” (ibid). • “Production editing” (ibid). • “Picture research” (ibid).

1.3 Problem statement

The changes experienced in the business environment and the increasing value of skilled workers support the importance of 21st Century Skills, such as: “abstract reasoning, problem-solving, communication, and collaboration” (Karolyn and Pains, 2004, p. 301). Therefore, educational programs (and the educational curriculum) need to reflect these skills, through a medium that can inspire learners and ensure that these skills are developed (Bassett, 2009).

It is clear from the description of *The educational value of school newspapers* (paragraph 1.2) that the construction of a school newspaper can be used as a tool to develop learners’ 21st Century Skills. This indicates that participation in constructing a school newspaper provides learners (editorial team) the opportunity to master some of the 21st Century Skills required in the business environment. However, much has been reported on the usage of school newspapers, but far too little on the principles that can assist teachers (editors) and primary school learners (editorial team) when undertaking the task of constructing a school newspaper.

This study aims to address the following question: What principles can assist teachers (editors) of school newspapers and primary school learners (editorial team) when undertaking the task of constructing a school newspaper?

The research problem can be paraphrased in a research question format and is provide in paragraph 1.4.

1.4 The research question

Supporting learners in the process of newspaper construction by a teacher will only be effective if the teacher and learners are familiar with the principles in constructing a school newspaper. This statement leads to the following question:

- What principles can assist editors (teachers) of school newspapers and primary school learners (editorial team) when undertaking the task of constructing a school newspaper?

1.5 Rationale of the study

In order to successful incorporate the 21st Century Skills into the current educational curriculum; the researcher had to find a suitable tool, a vessel of some sort, to bypass the entire structure.

All forms of communication contribute towards an increase in our knowledge structures. Information forms an important part of our daily lives and therefore plays a very important role in modern society. Newspapers, a form of written communication, supply us with the latest news, and keep us informed regarding transitional changes/events in our own country and the entire world. In newspapers, social, economic, political, literary and scientific topics are discussed. The researcher decided to investigate whether a school newspaper framework or curriculum exists in schools that would ensure the participation of learners in the daily running of such a paper and if participants (editor and editorial team members) are being equipped with the necessary 21st Century Skills.

Due to the above, the rationale of this study was to assist other editors of school newspapers and primary school learners that are part of the editorial team when undertaking the task of constructing a school newspaper. According to Holmes and Gardner (2006, p. 55) this 21st Century Skill is the ability of “understanding, managing and creating effective oral, written and multimedia communication in a variety of forms and contexts”.

It is therefore essential that learners enhance not only their ability to understand the information presented in newspapers but also the process involved in creating a newspaper. Involving learners in the process of newspaper construction can be an excellent way of developing the communication skills propagated by Holmes and Gardner (2006).

1.6 Purpose of the study

The purpose of this study is to determine the principles that can assist other editors (teachers) of school newspapers and primary school learners that are part of the editorial team, when undertaking the task of constructing a school newspaper.

1.7 Scope of the study

The scope of the study is discussed in paragraphs 1.7.1 to 1.7.3.

1.7.1 What is included in this study?

This study regarding the compilation of a school newspaper includes the following:

- Observations of the editor (teacher) and editorial team members (learners) during the editorial team's scheduled meetings.
- An interview with the editor (teacher) as well as the editorial team members (members).

Observations and interviews were carried out in order to determine certain principles that might assist teachers and primary school learners when constructing a school newspaper.

1.7.2 What is excluded from this study?

This study regarding the compilation of a school newspaper excludes, amongst others, writing methods and how articles should be written. Financial management was not incorporated either, i.e. ways and means to accumulate funds for the publication of the newspaper. The study does not focus on the emotional progress of the editorial team members for the duration of the school newspaper project. Neither does it aim at measuring the editorial team members' performance or satisfaction, or the relationship between these two variables.

1.7.3 Limitations of the study

The following limitations were identified during the study:

- In respect of the fact that few primary schools use learners to participate in constructing and publishing a school newspaper, only one primary school editorial team partook in the study.
- The waiting period to obtain permission to do the research from the Department of Education as well as the delay of the University to give ethical clearance obliged the researcher to change the planned time period to collect the data.

- The quality of newspaper articles was not determined.
- The performance or satisfaction of editorial team members was not measured.

1.7.4 Significance of the study

Limited research has been done in the field of primary school learners constructing and publishing a school newspaper. The study could awaken facilitators about the development of 21st Century Skills by involving learners in the construction of a school newspaper.

Furthermore, the study provides guidelines to facilitators and learners to aid them in successfully constructing a school newspaper.

1.8 Study title issues defined

In this paragraph the phrase segments of the study title are employed as indicators to clarify the key elements in the study title: **Principles for engaging learners in the construction of school newspapers**

Principles for ...

The purpose of this study was to determine the principles that can assist other editors of school newspapers and primary school learners that are part of the editorial team, when undertaking the task of constructing a school newspaper.

... construction ...

The publication of the newspaper entails, amongst others, the construction processes where ideas and plans are tabled by all relevant parties concerned, contributing to the way in which the project should be approached.

... school newspaper ...

A school newspaper is a publication produced solely by a school's learners. The editorial team is usually led by a teacher. The teacher serves as an adviser and helps to organise the learners so that they can produce the publication in a timely, efficient manner. School newspapers exist to stimulate learners' interest in journalism.

1.9 Organisation of the report

Table 1.3 provides a detailed description of each chapter.

Table 1.3: Description of chapters

Chapters	Description
Chapter 1 Background to the study	This chapter will provide an overview of the study, the motivation behind it and what the researcher aims to prove.
Chapter 2 Literature review	The literature review will explicate the current literature available on the subject and how it is relevant to this study.
Chapter 3 Research design and methods	In this chapter the researcher explains the approach and methods used in this study.
Chapter 4 Data gathering and analysis	The researcher reports the findings of the data after the data has been collected in this chapter.
Chapter 5 Interpretation and recommendations	In this chapter an interpretation of findings is provided.

Chapter 2

Literature review

2.1 Introduction

In Chapter 2 the literature review explicates the current literature available on the topic and how it is relevant to this study.

The four topics that will be clarified in this chapter are: school newspapers, 21st Century Skills, Activity theory and Grounded theory. It was necessary to review the literature on school newspapers with the intention to gain more knowledge into the construction, the content the advantages, or disadvantages of school newspapers for educational purposes.

The term *21st Century Skills* are used more and more in education and businesses across the globe. Attempts were made to shed light on what 21st Century Skills are and whether these skills carry any relevance in the current educational model. The theoretical framework for this study was built with the Activity theory and 21st Century Skills in mind.

Grounded theory was chosen as the method to analyse the data of this study, it was therefore deemed necessary to include Grounded theory in the literature study.

2.2 School newspapers

It was immensely difficult to find relevant information pertaining to the construction of a school newspaper. Information from searches on Jstor, a database on academic journals, and other bibliographical resources yielded insufficient information. The lack of literature on constructing a school newspaper led to the broadening of the search criteria. During the search of information relating to school journalism, a search on Jstor found that the popularity of school newspapers was at its peak during the middle part of the 20th century (1934-1967).

Studies during the 1930's towards early 1970's focussed on the information and knowledge that was published in school newspapers, but as time passed and as humanity moved into a more technological era (digital and data processors) the demise of school journalism and research towards this subject started to become evident. Even though a steady decline could be found in the research over the years, a sudden rise was again seen during the 1980's. It was as if the newspapers started to play a role in society again.

The demise of school journalism studies from the 1980's towards the year 2000 can most probably be ascribed to the rise of the Internet and the World Wide Web, with easy access to a wealth of information across all borders, land, culture and religion. It can be argued that the focus of researchers shifted from conventional methods to new, innovative methods using the so called new technology to the worlds' exposure.

During the period of 2000 to 2011, the Internet was in full use by almost every company in the developed world; even in most developing countries the Internet could easily and freely be accessed. This new technology is best explained by the "concept of Web 2.0" (O'Reilly, 2005, p. 1). The focus is shifted from distributing information and selling software as products effectively making them commodities to participation and "database management" (ibid). A company like Google "isn't just a collection of software tools but rather a specialized database" (ibid). Another "essential part of Web 2.0 is harnessing collective intelligence turning the web into a kind of a brain" (O'Reilly, 2005, p. 3). Facebook and Twitter would be good examples of Web 2.0 databases, where participation and database management is important.

Figure 2.1 indicates the fluctuation and demise of studies relating to school journalism during 1900 and 2011. The numerical information was obtained by counting the number of articles available in Jstor on school journalism.

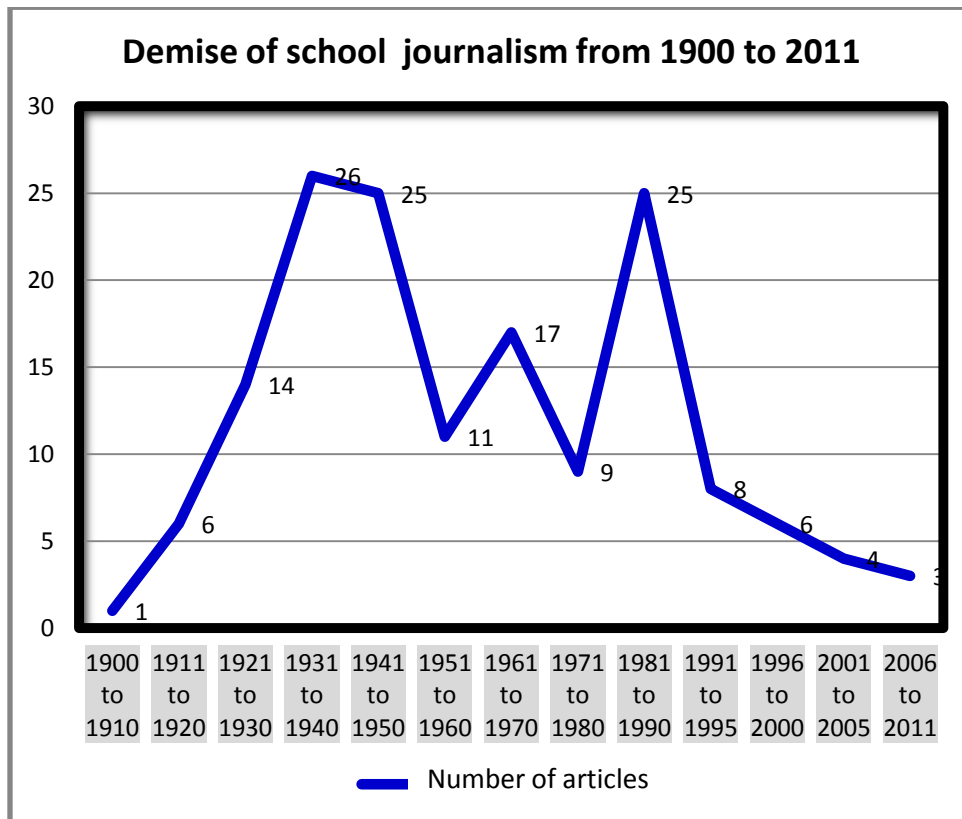


Figure 2.1: The fluctuation and demise of studies towards school journalism during 1900 and 2011

2.2.1 School newspapers in context

The national as well as the international context of school newspapers is discussed in paragraphs 2.2.1 – 2.2.2.

2.2.1.1 School newspapers in international context

An annual general competition is held in Hesse, Germany, during which the best school newspaper and best individual articles are selected (U.S. Consulate, 2009). In 2007 and 2009 the Hesse Youth Press and the U.S. Consulate took hands and launched a competition, namely “Competition USA” within the aforementioned annual competition (ibid). This gesture shows how countries endeavour together to promote journalism in the world (ibid). In Yorkton, Canada, a forum is provided by the Sacred Heart High School newspaper whereby ideas are exchanged, a creative outlet for literary and artistic learners is brought about as well as the opportunity to develop organisational and public skills (Wikipedia, 2011^a). The learners therefore “gain experience in the practical application of computers and photography” (ibid).

In South Dakota a Native American school provides their learners the opportunity to participate in the construction of the school newspaper (Voice of America, 2011). This school newspaper is broadly read and regarded as a supplement to the Lakota Country Times and is circulated not only around school (ibid). This enables the school newspaper to achieve one of its goals, namely, the enhancement of communication within the community as well as with the parents of the school (ibid). The goal of the regional newspaper, *Lakota Country Times*, is to establish a student newspaper in every reservation school (ibid). This will establish communication between the school and community (ibid).

The *Tattler* is the school newspaper of the Ithaca High School in Ithaca, New York and was founded in 1892 (Wikipedia, 2011^b). It is published six to ten times a year and is one of the oldest school newspapers in the USA (ibid). It is distributed in both the school and community and has a circulation of approximately 3000 copies (ibid). Student writers of the *Tattler* work in partnership with the help of a teacher; the *Tattler* has by tradition been almost entirely “student-run” with a student editorial board (ibid). In the past ten years its publication has increased considerably; the number of pages has increased, distribution was introduced outside the premises of the high school and an online presence was developed (ibid).

2.2.1.2 School newspapers in national context

The first newsletter for Grey College (High School) was published in 1877 (Grey College, 2011). The first official school newspaper, *Stabilis*, of which the editorial staff comprised of 36 learners (ibid), made its appearance in 1946. The current editorial team members all receive annual responsibility training. *Stabilis* was selected on seven occasions as the best school newspaper in South Africa (ibid).

In 1993 The Institute for the Advancement of Journalism (IAJ) launched a newspaper program assisting learners with the basic layout and publication of a newspaper (IJNet, 2005). In excess of 300 students in South Africa have participated herein (ibid). The goal of the newspaper program is to train learners and teachers in the active role and value of journalists in the present democratic environment (ibid).

For children in Africa the first free newspaper was *Learn the News* (Ndlovu, 2009). The newspaper was created by Duncun Guy, a journalist from Johannesburg, and the South African Press Association is responsible for the publication thereof (ibid). Presently the number of schools in the country that have subscribed to this newspaper is 250; the newspaper is distributed during school terms via email (ibid). Each edition comprises of five news pages that are illustrated by children from different schools (ibid). The goal of *Learn the News* is to publish a newspaper in a simple language understood by children, promote reading, encourage their interest in current affairs and enhance their knowledge (ibid). Disadvantaged schools make use of this newspaper as reading material while one college's practitioners involved in the program of childhood development utilise it for the training of adult learners in this field (ibid). The newspaper is printed in English but translated into Afrikaans and Zulu (ibid).

2.3 21st Century Skills

2.3.1 Importance of education in the Knowledge Age

Challenges are and will always be part of our lives. For a school learner, one day being successful at their place of work and everyday life, depends greatly on the education he/she receives. Thus preparing a learner for the future is one of education's principle roles (Trilling & Fadel, 2009, p. 6). The authors further explains that "Knowledge work", on which the current and future work places are built, enables any person with the expertise to do anything at any place (ibid). In order for a country to enable a person to develop these expertises, the country requires "a proper education system that produces them" (ibid). Therefore, during the 21st Century the light of an economic future lies within education (ibid).

2.3.2 Skills in the current curriculum vs. 21st Century Skills

During a study that was conducted by *Conference board, Partnership for 21st Century Skills, Corporate Voices for Working Families, & Society for Human Resources Management* four hundred hiring executives of major corporations were asked an important question: "Are students graduating from school really ready to work?". The response was a unanimous "Not really" (Trilling & Fadel, 2009, p.7). These authors (ibid) concluded from the study that learners "graduating from secondary schools, technical colleges and universities" are profoundly deficient in specific fundamental "skills and a large number of applied skills", namely:

- “Oral and written communications” (ibid).
- “Critical thinking and problem solving” (ibid).
- “Professionalism and work ethic” (ibid).
- “Teamwork and collaboration” (ibid).
- “Working in diverse teams” (ibid).
- “Applying technology” (ibid.)
- “Leadership and project management” (ibid).

2.3.3 Educational goals of the 21st Century Skills

Trilling and Fadel (2006, p. 7) states that the significant gap of 21st Century Skills around the world “is costing business a great deal of money”. These authors (ibid) explain the educational goals of everyday society are to:

- “Contribute to work and society” (ibid).
- “Exercise and develop personal talents” (ibid).
- “Fulfil civic responsibilities” (ibid).
- “Carry traditions and values forward” (ibid).

In the current age, termed the Knowledge Age, the role of 21st Century Skills in educational goals is explained in Table 2.1.

Table 2.1: The role of 21st Century Skills in educational goals explained

Educational goals	Explanation
Contribute to work and society	In order for one to contribute productively in the 21 st century, not only should you master a broad spectrum of “essential learning, innovation technology and career skills” that are exceptionally valuable for “work and life”; you need to gain experience in the “core content of field knowledge” (Trilling & Fadel, 2009, p. 16).
Exercise and develop personal talents	The power foundations of erecting capabilities and sharing aptitudes in the current Knowledge Age are mostly digital devices and the world wide web. By enabling widespread access to these tools and minimizing the “digital divide” that exists amongst “the information rich and the information poor”, greater “opportunities for learners” will be discovered and unveiled (Trilling & Fadel, 2009, p. 17).
Fulfil civic responsibilities	Proper knowledgeable involvement in “democratic decision” making is made possible through “access to” wide spread “issues, facts, opinions, and discussions” that takes place in a progressively active, “media-rich and internet connected world” (Trilling & Fadel, 2009, p. 17).
Carry traditions and values forward	During the 21 st century, a person would require the ability to learn the core ideologies and ethnicities of a “field of knowledge” and combine it with the understanding of different fields in order to develop new “knowledge, new services, and new products” (Trilling & Fadel, 2009, p. 18).

2.3.4 Framework for 21st Century learning

21st Century Education can be described as being “flexible, creative, challenging, and complex” (21st Century Schools, 2010). It concentrates on a quick transforming “world filled with fantastic new problems as well as exciting new possibilities” (ibid).

The Partnership for 21st Century Skills identified a collection of skills, which assists learners to overcome numerous complicated demands which they are exposed to in this Information Age Society and the workplace (Partnership for 21st Century Skills, 2004). To assist facilitators in combining the “skills into the teaching of core academic subjects, the Partnership has developed a unified, collective vision for learning known as the Framework for 21st Century Learning” (Partnership for 21st Century Skills, 2004). This Framework explains the “skills, knowledge and expertise” learners “must master to succeed in work and life”; it is a combination of “content knowledge, specific skills, expertise and literacy” (Partnership for 21st Century Skills, 2004). Figure 2.2 illustrates the skills learners need to master to succeed in the work situation and life in the 21st century.

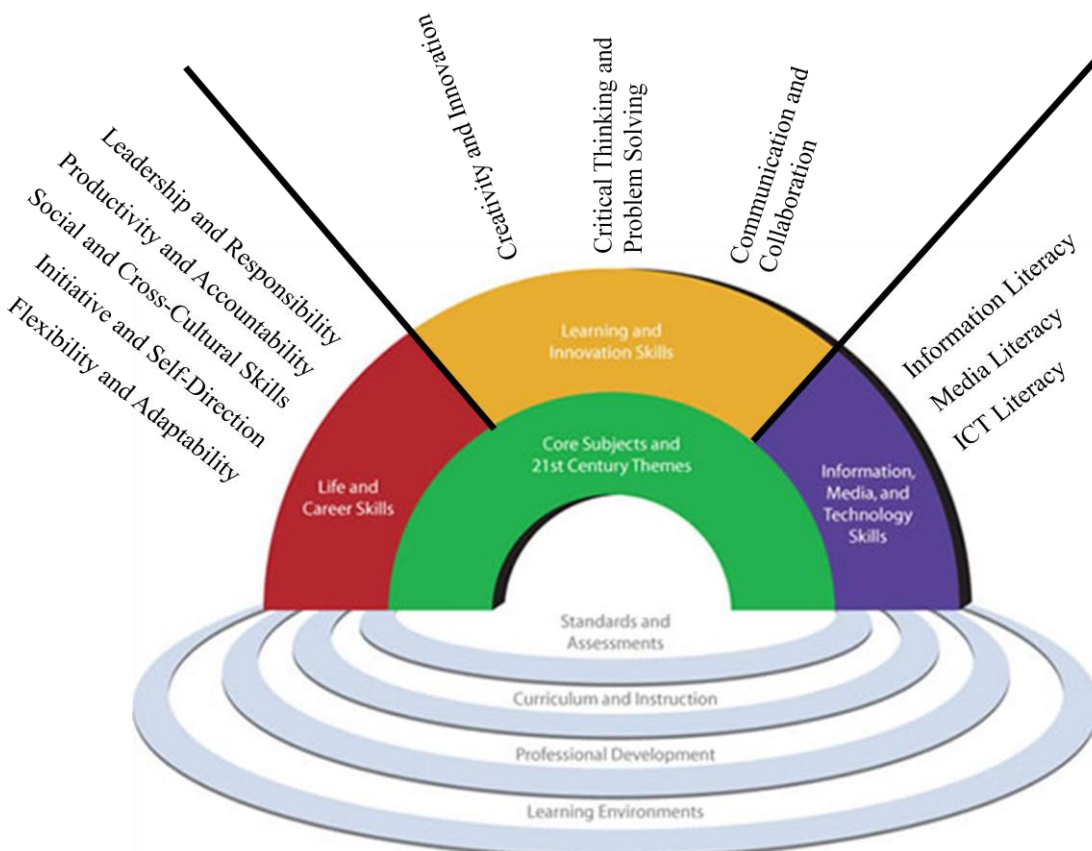


Figure 2.2: Framework for 21st Century Learning (Graphic adapted from The Partnership for 21st Century Skills Webpage)

Table 2.2 provides a detailed description of the Core Subjects, 21st Century Themes, Life and Career Skills, Learning and Innovation Skills as well as the Information, Media, and Technology Skills.

Table 2.2: Detailed description of the Framework for 21st Century Learning

Core subjects and 21st Century Themes	21st Century Interdisciplinary themes	Life and Career Skills	Learning and Innovation skills	Information, Media, and Technology Skills
<p>Core subjects::</p> <ul style="list-style-type: none"> English, reading or language arts World languages <p>Arts</p> <ul style="list-style-type: none"> Mathematics Economics Science Geography History Government and Civics 	<p>Global Awareness Using 21st Century Skills to understand and address global issues.</p> <ul style="list-style-type: none"> Learning from and working collaboratively with individuals. Understanding other nations and cultures. <p>Financial, Economic, Business and Entrepreneurial Literacy</p> <ul style="list-style-type: none"> Knowing how to make appropriate personal economic choices. 	<p>Flexibility And Adaptability Adapt to change, be flexible, deal positively with praise, setbacks and criticism.</p> <ul style="list-style-type: none"> Understand, negotiate and balance diverse views and beliefs. <p>Initiative And Self-Direction</p> <ul style="list-style-type: none"> Manage goals and time, work independently, be self-directed learners. <p>Social And Cross-Cultural Skills</p> <ul style="list-style-type: none"> Interact effectively with others. Work effectively in diverse teams. <p>Productivity And Accountability</p> <ul style="list-style-type: none"> Manage projects. Produce results <p>Leadership And Responsibility</p> <ul style="list-style-type: none"> Guide and lead others. Be responsible to others. 	<p>Creativity And Innovation</p> <ul style="list-style-type: none"> Think creatively. <p>Work creatively with others.</p> <ul style="list-style-type: none"> Implement innovations. <p>Critical Thinking And Problem-Solving</p> <ul style="list-style-type: none"> Reason effectively. Use systems thinking. Make judgments and decisions. Solve problems. <p>Communication And Collaboration</p> <ul style="list-style-type: none"> Communicate clearly. Collaborate with others. 	<p>Information Literacy</p> <ul style="list-style-type: none"> Access and evaluate information. <p>Use and manage information.</p> <p>Media Literacy</p> <ul style="list-style-type: none"> Analyse media Create media products. <p>ICT (Information, Communications And Technology) Literacy</p> <ul style="list-style-type: none"> Apply technology effectively.

(Partnership for 21st Century Skills, 2004)

2.3.5 The link between the forms of media and the 21st Century Skills

From the first documented history, the idea of literacy sprung from having the ability to understand handwritings on portions of rag that when assembled, made words that brought across significance. During the 21st Century, the skill was brought into everyday life by ways of newspapers. These newspapers, by way of different topics, typically informed society about: “opinion, news, advertising, features, art and sports” (Konkle, 2004, p. 10).

Newspapers, as was known during the 20th century and 21st century, are a great form of communication. The Centre for Media Literacy generated CML MediaLit Kit to “help establish a common ground on which to build curriculum and training in media literacy as a building block for 21st Century Skills” (Thoman & Jolls, 2004, p. 27). These authors (2004, p. 23) state that media literacy develops the notion of writing to comprise of not only “written text”, but a mixture of communication forms such as: “verbal-, aural-, or visual- communication”, as long as these forms of communication are used to exchange thoughts and philosophies between “human beings”. Proper comprehension of such writing comprises not only of “deconstruction activities, but also the construction activities, learning to write their opinions and ideas”. (ibid). Rogow (2011, p. 12) states that creating any form of media “offers concrete, hands-on learning opportunities”.

Baker (cited the Ontario Ministry of Education’s *Media Literacy Resource Guide*, 1997) defines media literacy as being “concerned with helping students develop an informed and critical understanding of the nature of mass media, the techniques used by them, and the impact of the techniques. More specifically it is education that aims to increase the students’ understanding and enjoyment of how the media work, how they produce meaning, how they are organized, and how they construct reality. Media literacy also aims to provide students with the ability to create media products” (2011, p. 10).

The National association for Media Literacy Education endorses six essential principles in their project “The Core Principles of Media Literacy Education” (Baker, 2011, p. 10). These principles are:

- “Active inquiry and critical thinking about the messages we receive and create” (ibid).
- Develop “the concept of literacy (i.e., reading and writing) to include all forms of media” (ibid).
- “Builds and reinforces skills for learners of all ages” (ibid).
- “Develops informed, reflective, and engaged participants essential for a democratic society” (ibid).
- “Recognizes that media are a part of culture and function as agents of socialization” (ibid).
- “Affirms that people use their individual skills, beliefs, and experiences to construct their own meanings from media messages” (ibid).

2.4 Activity theory

2.4.1 The activity concept

Uden, Valderas and Pastor (2008) emphasise that activity means “that there is an agent who acts (an individual or collective subject)”. They furthermore state that “an activity is undertaken by a subject (individual or subgroup) using tools to achieve an object (objective), thus transforming objects into outcomes” (Uden et al., 2008). Fjeld, Lauche, Bischel, Voorhorst, Krueger and Rauterberg (2002, p. 154) define activity as “a subject’s interaction with his or her surroundings”. The analysis of an activity “refers to a group of people, or a community, who share a common object (or problem space) and who use tools to act on that object, transforming it” (Hardman, 2005, p. 381).

2.4.2 Background, definition and aim of Activity theory

Although most of today’s theories on activity theory are based on the work of Alex Leont’ev. The roots of activity theory stretches further back into history. Being a scholar, a colleague and later on a successor of Vygotsky, Leont’ev’s activity theory can be traced to several sources (Engeström, 2001, p. 134).

During the 18th and 19th century, German philosophers, from Kant to Hegel, had cognisance of activity theory by emphasizing “development and historical ideas” as well as “the active and constructive role of humans” (Kuutti, 1996, p. 13). It was during these centuries that the first literature on activity theory was established. Leont’ev’s second source is directly linked to the findings of Marx and Engels “who elaborated the concept of activity further” (ibid). During the 1920’s and 1930’s Vygotsky initiated his theory on Soviet Cultural historical activity, centering it on the German philosophers’ literature and the literature of Marx and Engels. Engeström (2001, p. 134). Explains that “Cultural-historical activity theory was initiated by Vygotsky (1920’s-1930’s)”. Alex Leont’ev further developed Cultural-historical activity theory, by “distinguishing between activities, which satisfy need, and the actions that constitute the activities” (Roth, 2006, p. 32).

Uden et al. (2008) refer in their research to the following generations of Activity theory that were identified by Engeström in 2001:

- The first generation is the “conception of mediation” (ibid) – centred around Vygotsky.
- The second generation “advocates the study of tools or artefacts as integral and inseparable components of human functioning” (ibid) – centred around Leont’ev.
- The third generation is “the unit of analysis for Activity theory” (ibid).

Table 2.3 provides definitions of Activity theory by various authors.

Table 2.3: Definitions of Activity theory by various authors

Authors	Definition
Kuutti	Activity is defined as a “philosophical and cross-disciplinary framework for studying different forms of human practices as development processes (Kuutti, 1996, p. 13).
Nardi	Activity theory is described as a “powerful and clarifying descriptive tool rather than a strongly predictive theory” (Nardi, 1996).
Li and Bratt	Activity theory is defined as when “all purposeful human activity is conceptualized” (Li & Bratt, 2004, p. 20).
Uden et al.	Activity theory “exists and can only be understood within the context of human interaction with the world and [the understanding] of this interaction” (Uden et al., 2008).
Spector and Wang	Activity theory is described as “individuals within a group, with various roles and responsibilities, working together with accepted norms and rules, using a variety of tools and creating a variety of artefacts, to achieve a common goal” (Spector & Wang, 2002).

Nardi (1996, p. 5) states that the aim of Activity theory is to mediate “human experiences” using “tools and systems”. He also explains that “Activity theory is certainly evolving and growing” through mediating (ibid). According to Uden et al. (2008) Activity theory “focuses on the interaction of human activity and consciousness within its relevant environmental context”. These authors further explain that “the essential unit of analysis in Activity theory is human activity” (ibid). They conclude that “human activities are driven by certain needs where people wish to achieve certain purposes” (ibid). Figure 2.3 demonstrates how such an activity system operates.

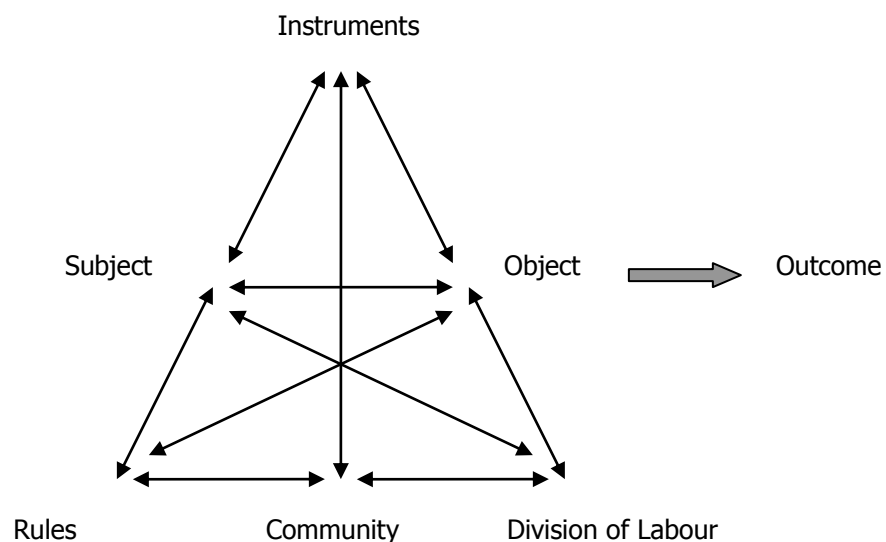


Figure 2.3: A model of an activity system adopted from An Activity theory based model to analyse Web application requirements

2.4.3 The activity system

The elements of an activity system are the following:

- Subject
- Object
- Community
- Tools
- Rules
- Division of labour

The activity levels, functioning of the activity system as well as the elements of the activity system will be addressed.

2.4.3.1 Activity levels and functioning of the activity system

According to Learning Theories Knowledgebase (2011) activity theory can be described as “a framework or descriptive tool for a system” (Learning Theories Knowledgebase, 2011). Throne (2000) explains that activity theory presents an outline “for understanding multiple types of data and analyses under the common umbrella of a functional activity system” (Throne, 2000, p. 2). Uden et al. (2008) agree with Kuutti’s view that activities contain “three hierarchical levels” that function separately and collectively. These levels are:

- “The activity level” (ibid).
- “The action level” (ibid).
- “The level of operation” (ibid).

2.4.3.2 Instruments, tools and artefacts

According to Uden et al. (2008), Activity theory emphasises “that human activity is mediated by tools”. The authors also state that tools are formed and changed “during the development of the activity itself” (ibid). Uden et al. (2008) argue that the utilisation of “tools is an accumulation and transmission of social knowledge”.

Activity theory (Wikipedia, 2008^a) states that tools will be created when people “engage and interact with their environment”. The tools are therefore “exteriorized forms of mental processes” and then become easily available and “communicable to other people” (Wikipedia, 2008^a). Furthermore Fjeld et al. (2002, p. 155) postulate that activity is formed “by physical surroundings” but also forms “the surroundings” (ibid). Additionally when this happens, “internal mental activity materializes into artefacts” and is then called exteriorization (ibid). This is a significant stage in a person’s “creative design activity” and therefore enables a person’s ideas to be available to other people.

Assuredly exteriorisation is a fundamental “social moment that supports mutual understanding in a collective creative design process” (ibid). In addition Fjeld et al. (2002, p. 155) explain that “tool[s] mediate an activity” resulting in [the] joining [of] a person to “the world of objects” as well as “other human beings”.

Roussou, Olivier and Slater (2007) postulate that “the relationship between the individual and the world is not direct but mediated by the tools (e.g. technology) provided”. These authors agree with Nardi’s view that “computers are a particularly interesting example of tools that are crucial mediators of human experience” (ibid). In their view activity is generally “mediated by one or more instruments” and as a result “directed toward a certain object” (ibid).

According to Nardi (1996, p. 5) Activity theory suggests that “activity cannot be understood without understanding” the importance of “artefacts in everyday existence”. He argues that “artefacts are integrated into social practice” (ibid). Nardi (1996, p. 7) states that Activity theory is an expansion of cognitive science.

The difference is that “Activity theory is concerned with practice, that is, doing and activity” (ibid). He agrees with Kaptelinin and Zinchenko that the notion of Activity theory is an essential concept in “pinpointing the way the mind and body are profoundly extended and transformed by artefacts” (ibid). Uden et al. (2008) state that a tool is “anything used in the transformation process” and consists of “both material tools and tools for thinking” (ibid).

According to Uden et al. (2008) the transformation process happens when the “object” is transformed “into an outcome” by using different “tools”, adding that “artefacts are created and transformed” throughout “the development of the activity” (ibid).

2.4.3.3 Subject and object

Li and Bratt (2004, p. 20) explain that “the subject refers to the individual or group whose point of view is taken in the analysis of the activity”. According to Uden et al. (2008) a subject “is a person or group engaged in an activity”. According to Li and Bratt (2004, p. 22) Activity theory looks at actions as “human activity” that is “carried out through actions”. They argue that actions are “controlled by the subject's conscious goals” and are therefore the expectation of “future results of the action” (ibid).

Li and Bratt (2004, p. 20) describe an object as “the target of the activity within the system”. In addition, Uden et al. (2008) define an object as “a learning objective held by the subject”. Uden et al. (2008) postulate that both the levels of the object and subject link to the “motive, goal and conditions”. These authors furthermore state that all activities contain an “internal and external component with the subject and object” and therefore exist “as part of a dynamic and reciprocal relationship” (ibid). Kuutti (cited by Uden et al., 2008) explains that “the subject transforms the object”. In addition Kuutti (cited by Uden et al., 2008), states that “the properties of the object penetrate into the subject and transform” it.

Kuutti (cited by Uden et al., 2008) therefore names this “internalisation”. Uden et al. (2008) postulate that “the relationship between subject and object of activity is mediated by a tool”.

2.4.3.4 Community and rules

Li and Bratt (2004, p. 20) explain that a community consists “of one or more people who share the objective with the subject”. In addition, Uden et al. (2008) define a community as “one or more people who share the objective with the subject”.

According to Li and Bratt (2004, p. 20) rules “regulate actions and interactions within the activity system”. Uden et al.’s (2008) view of a rule is that it also “regulates actions and interaction.” These authors (ibid) argue that “the relationship between subject and the community is mediated by rules”. According to them, the “rules cover both implicit and explicit norms, conventions and social relations within a community as related to the transformation process of the object into an outcome” (ibid). Hardman (2005, p. 381) states that the relationships in an activity system “are driven by rules, which both afford and constrain behaviour” (ibid).

2.4.3.5 Division of labour

Li and Bratt (2004, p. 20) describe the division of labour as being “both a horizontal division of tasks among community members, as well as a vertical division between power and status-holders”. Uden et al. (2008) state that the division of labour is “how tasks are divided between cooperating members of the community as well as the division of power and status”. These authors continue to explain that the “relationship” amongst the “object and community is mediated by the division of labour” (ibid).

2.4.3.6 Basic principles of Activity theory

According to Kaptelinin (1997) Activity theory consists “of basic principles that constitute a general conceptual system”. Kaptelinin (1997) identifies the following “basic principles of Activity theory”:

- “The hierarchical structure of activity” (ibid).
- “Object-orientedness” (ibid).
- “Internalisation/externalisation” (ibid).
- “Tool mediation” (ibid).
- “Development” (ibid).

Kaptelinin (1997) states that the basic principles of the activity system need to be “considered as an integrated system”.

Hardman (2005, p. 380) reviewed the literature by Cole, produced in 1996, and by Russell produced in 2002 that enabled him to “elaborate” on these basic principles. According to Hardman the basic principles of Activity theory are the following:

- Cole and Engeström (cited by Hardman, 2005, p. 380) that, “human activity is collective and human behaviour originates within the social realm” of humans (Hardman, 2005, p. 380).
- “Mediational means (Tools)” (Hardman, 2005, p. 381).
- “Subject(s) object/motive -->outcome(s)” (ibid).
- That the “mind is a social, growing out of joint activity” (ibid).
- “Tools, which carry socio-historical meanings, mediate our psychology” (ibid).
- “Development and change” (ibid).
- “People are active cognising agents” (ibid).
- People “make use of a contextualised methodology” (ibid).
- “Activity systems are subject to change” (ibid).

2.4.4 The steps for the methodology of Activity theory

Uden et al. (2008) state that the methodology of Activity theory consists of steps that need to be followed. These steps are the following:

- Step 1 is to “clarify the purpose of the activity system” (Uden et al., 2008).
 - This step is “twofold”:
 - Firstly, it comprehends “the context within which activities occur” (ibid).
 - Secondly, “to reach a thorough understanding of the motivations for the activity being modelled and any interpretations of perceived contradictions” (ibid).
- Step 2 is to “analyse the activity system and produce the activity system” (ibid).
 - This step entails “defining, in depth, the components of the given activity, namely the subject, object, community, rules and division of labour” (ibid).

2.4.5 Benefits of Activity theory

In Table 2.4 benefits of Activity theory are identified by various authors.

Table 2.4: Benefits of Activity theory identified by various authors

Authors	Benefits
Nardi	<ul style="list-style-type: none"> • Activity theory addresses “practical needs” (Nardi, 1996, p. 5). • Activity theory offers abundant “room in the intellectual sandbox for adventure and discovery” (ibid). • Activity theory “has a simple but powerful hierarchy for describing activity” which is easily understandable and very useful “for all HCI researchers” (ibid).
Hardman	<ul style="list-style-type: none"> • Activity theory has the capability “to enable” a person to comprehend “learning as the complex result of tool mediated interactions” that take place in the minds of students (Hardman, 2005, p. 378).

2.5 Grounded theory

2.5.1 Definition and goals of Grounded theory

Willig (2008, p. 34) describes Grounded theory as a “process of discovery of theory generation”. In brief, Grounded theory” is a method that is more appropriate for some questions than others” (Suddaby, 2006, p. 634). Grounded theory is also more suitable to use “when knowledge claims are made about how individuals interpret reality” (ibid).

Suddaby (2006, p. 636) points out that the objective of Grounded theory is to generate new intelligence regarding the “patterned relationships between social actors” as well as the manner in which “these relationships and interactions actively construct reality”. Therefore Grounded theory should be used to “make statements about how actors interpret reality” (ibid). As a result, Grounded theory should only be used “to make statements about how actors interpret reality” and not to test theories concerning reality (ibid).

In the article *Grounded theory* (Wikipedia, 2008^d) Grounded theory is described as a “general research method for behavioural science”. Grounded theory is in addition also known as the “constant comparative method” (ibid). The importance of the name “underscores the generation of theory from data” (ibid). Additionally Suddaby (2006, p. 634) points out that Glaser and Strauss describe Grounded theory as “an organic process of theory emergence based on how well data fit conceptual categories identified by an observer”. Again Suddaby emphasises the view that the “categories explain or predict ongoing interpretations” as well as that the categories are extremely important “to the core issues being observed” (ibid).

According to the article *Grounded theory* (Wikipedia, 2008^e) Grounded theory is outlined as a method “that operates almost in a reverse fashion to traditional research.” Grounded theory is described as being “multivariate” (ibid). *Multivariate* can be interpreted as implying that the process of Grounded theory is occurring “sequentially, subsequently, simultaneously, serendipitously, and scheduled” (ibid).

Additionally Glaser’s view (cited by Wikipedia, 2008^d) emphasises that Grounded theory provides “the researcher freedom to generate new concepts explaining human behaviour” (Wikipedia, 2008^d). Grounded theory has two paradigms, namely the Glaserian paradigm and the Straussian paradigm that are very different from each other (ibid). Garson (2008) explains the two paradigms as follows:

- The Straussian approach highlights the “induction from qualitative field data, inferring variable labels (“codes”) from statements of and artefacts associated with subjects being studied, allowing for multiple and possibly conflicting ‘coding families’” (ibid). This approach is viewed as being a prescriptive approach (Willig, 2008, p. 50).
- The Glaserian approach “takes a more social scientific approach, emphasizing a unified ‘coding paradigm’ developed by the researcher and applied systematically to the study of causal relationships” (ibid).

Furthermore, in the article *Grounded theory* (Wikipedia, 2008^e) it is postulated that Grounded theory “is a systematic generation of theory from data that contains both inductive and deductive thinking”. The following goals of Grounded theory have been identified:

- “To formulate hypotheses based on conceptual ideas” (ibid).
- “To discover the participants’ main concern and how they continually try to resolve it” (ibid).
- To generate “concepts that explain people’s actions regardless of time and place” (ibid).

Suddaby (ibid) postulates that the research of Glaser and Strauss enables a researcher to create a new theory if:

- The researcher pays particular attention to the differences between “the daily realities of substantive areas” (ibid).
- Attention is given to the importance of the participants’ interpretation of “the daily realities” (ibid).

Willig (2008, p. 36) states that “Grounded theory aims to develop new, context-specific theories”. Willig (2008, p. 35) postulates that Grounded theory is “both the process of category identification and integration (as method) and its product (as theory)”. Grounded theory establishes guidelines that enable researchers to:

- “Identify categories” (ibid).
- “Link” categories to each other (ibid).
- Create “relationships between” categories (ibid).

Willig (ibid) states that “Grounded theory as theory is the end-product of this process”.

Suddaby in addition agrees to Gephardt’s view (cited by Suddaby), that the process of Grounded theory can be explained by analysing “the actual production of meanings and concepts used by social actors in real settings” (ibid).

2.5.2 Principles of Grounded theory

Thomas and James (2006, p. 768) argue that Grounded theory is a qualitative inquiry analysis technique that aims to “meet” the current “need[s]” of research (Thomas & James, 2006, p. 768). These two authors (2006, pp. 769-770) highlight in their article Charmaz’s five principles for the development of Grounded theory:

- “The structuring of inquiry” (ibid).
- “The simultaneity of data collection and analysis” (ibid).
- “The generation of new theory rather than the verification of existing theory” (ibid).
- “The refinement and exhaustion of conceptual categories through theoretical sampling” (ibid).
- “The direction to more abstract analytic theory” (ibid).

Garson (2008) argues that supporters of Grounded theory search for “continuous interplay between data collection and theoretical analysis”. According to Garson (2008) this means that the method of Grounded theory is firstly to look at “a variety of data collection methods” (ibid).

Table 2.5 proposes in a more elaborate manner the basic principles of Grounded theory described by various authors.

Table 2.5: Basic principles of Grounded theory

Principles	Authors
Formulation of the research question	Garson (2008) states that a researcher must “frame a testable research question”. <ul style="list-style-type: none"> • The research question must stay on a “descriptive level” (Willig, 2008, p. 38). • The question must help the researcher “to identify the phenomenon without making too many assumptions” (ibid). • The question must be formulated by using the question word <i>How</i> (ibid). • The correct formulation of the research question will then “orientate the researcher towards action and process” (ibid). • Willig (ibid) states that “the research question” has to be an “open-ended” question.
Gathering data	Garson (2008) identifies the following data gathering techniques: <ul style="list-style-type: none"> • “Interviewing” (ibid). • “Case studies” (ibid). • “Participant observation” (ibid). • “Field notes” (ibid). • “Event chronologies” (ibid). • “Textual transcripts” (ibid). • “Focus groups” (ibid). • “Surveys” (ibid). • “Archival research” (ibid).
	Willig (2008, p. 39) names the following techniques: <ul style="list-style-type: none"> • “Semi-structured interviewing” (ibid). • “Participant observation” (ibid). • “Focus groups” (ibid). • “Diaries” (ibid).
Gathering data	Willig (ibid) describes two Grounded theory versions: <ul style="list-style-type: none"> • Full version <ul style="list-style-type: none"> ▪ The researcher collects and investigates a certain quantity of data “through initial open coding” (ibid). ▪ Relationships amongst the categories are then identified (ibid). ▪ The researcher “then returns to the field to collect further data” (ibid). ▪ Triangulation may occur during this data collection version (ibid). • Abbreviated version <ul style="list-style-type: none"> ▪ This version is mainly “used where time or resource constraints prevent the implementation of the full version” (ibid). ▪ Willig (ibid) suggests that line-by-line coding should be used when conducting this method.

Table 2.5: Basic principles of Grounded theory (continued)

Principles	Authors
Data analysis	<ul style="list-style-type: none"> • The data is analysed in the following ways: • Open coding <ul style="list-style-type: none"> ▪ Neuman (cited on the webpage UBCWiki, 2006^b) defines open-coding as the “first pass through recently collect data”. ▪ A researcher will then establish “themes and assigns initial codes or labels in a first attempt to condense the mass of data into categories” (ibid). ▪ After the establishing of themes the researcher will then need to read “field notes, historical sources, or other data, looking for critical terms, key events, or themes, which are then noted” (ibid). ▪ The researcher will, after carefully reading through all the data, need to identify the concepts and mark the concepts that fit together in a similar way (ibid). • Axial coding <ul style="list-style-type: none"> ▪ Neuman (cited on the webpage UBCWiki, 2006^a) describes axial coding as “a second pass through the data”. ▪ Neuman (ibid) explains that a researcher will start “with an organized set of initial codes”. ▪ During axial coding the researcher will primarily review the “initial coded themes” (ibid). ▪ The researcher will also need to ask questions “about causes and consequences, conditions and interactions, strategies and processes, and look for categories or concepts that cluster together” (ibid).
	<ul style="list-style-type: none"> • Selective coding <ul style="list-style-type: none"> ▪ Neuman (cited on the webpage UBCWiki, 2006^c) states that “by the time a researcher is ready for this <u>last pass</u> through the data, he or she has identified the major themes of the research project”. ▪ Selective coding entails “scanning data and previous codes” (ibid). ▪ The researcher will inspect the data “for cases that illustrate themes” and will then “make comparisons and contrasts after most or all data collection is completed” (ibid). ▪ “In selective coding, the researcher goes through his or her field notes, looking for differences” (ibid). ▪ When a researcher “recognises specific themes identified in earlier coding” he or she will then be able to “elaborate” on more “than one major theme” (ibid). <p>Willig (2008, p. 35, 36) states that in the beginning of the analysis “coding is largely descriptive”. The researcher will attach “descriptive labels” to the “discrete instances” of a “phenomena” (ibid). After the coding, categories are established in the following manner:</p> <ul style="list-style-type: none"> • Occurrences that “share central features of characteristics with one another” are grouped in the same categories (ibid). <p>Categories can take place at a “low level of abstraction, in which case they function as descriptive labels” (ibid).</p> <ul style="list-style-type: none"> • “Categories at a higher level of abstraction are analytical rather than descriptive” (ibid). • “Categories in Grounded theory” come forward from “the data” and develop “throughout the research process” (ibid). <p>Willig (ibid) mentions that negative case analysis also surfaces during the data analysis process. Negative case analysis takes place when “instances do not fit” with established categories (ibid).</p>

Table 2.5: Basic principles of Grounded theory (continued)

Principles	Authors
Memo-writing	<p>Theoretically memoing is the most important stage of the method of Grounded theory (Wikipedia, 2008^e). According to the article <i>Grounded theory</i> (Wikipedia, 2008^e) memos “are important tools to both refine and keep track of ideas that develop when you compare incidents to incidents and then concepts to concepts in the evolving theory” (ibid).</p>
	<p>Willig (2008, p. 37) states that memo-writing “is an important part of Grounded theory method”. The researcher must keep a “written record of theory development” during the data gathering process (ibid).</p>
	<p>Willig (ibid) mentions the various types of memo that can be used:</p> <ul style="list-style-type: none"> • Memos can be “long or short”. • The memo can be an “abstract or concrete” memo. • Memos can be “integrative or original”. • The researcher can decide if the memo must be kept in the form of “words or diagrams”. <p>Willig (ibid) emphasises that “dates” and “headings” should be visible on all memos. The reasons for keeping a memo of the research are the following:</p> <ul style="list-style-type: none"> • To write down “definitions of categories and justify labels” (ibid). • To map out “emergent relationships with one another” (ibid). • The “record-keeping of progressive integration of higher- and lower-level categories” (ibid). • The researcher is able to reflect “on the adequacy of the research” (ibid).

2.5.3 Strategies of Grounded theory

In Table 2.6 strategies are describe by various authors.

Table 2.6: Key strategies of the Grounded theory method

Strategies	Description of method
Constant comparison method	<p>Glaser and Strauss (cited by Dye et al., 2000) explain “the constant comparison method by following four distinct stages”. The stages are:</p> <ul style="list-style-type: none"> ▪ The contrasting of “incidents applicable to each category” (ibid). ▪ Combining of “categories and their participants” (ibid). ▪ “Delimiting the theory” (ibid). ▪ The “writing” of the “theory” (ibid). <ul style="list-style-type: none"> • The constant comparison method guarantees “that the coding process maintains its momentum” (Willig, 2008, p. 36). • Willig (ibid) postulates that the constant comparison method “ensures that the researcher builds-up categories but also breaks them down into smaller parts”. • The constant comparison method enables the researcher to identify “similarities and differences between emerging categories” (ibid).

Table 2.6: Key strategies of the Grounded theory method (continued)

Strategies	Description of method
Constant comparison method	<ul style="list-style-type: none"> • After the researcher has identified the “common feature”, by using the constant comparison method, the researcher “needs to refocus on differences within a category in order to be able to identify emerging subcategories” (ibid). • The essential purpose of the constant comparative method “is to link and integrate categories in such a way that all instances of variation are captured by the emerging theory” (ibid).
Theoretical sampling method	<ul style="list-style-type: none"> • The emerging theory determines the researcher’s “decisions about which data should be collected next” (Suddaby, 2006, p. 634). • The theoretical sampling method will determine “the direction” in which most recent data will be collected (ibid). • In the theoretical sampling method data is further collected “in the light of categories that have emerged from earlier stages of data analysis” (Willig, 2008, p. 37). • The theoretical sampling method enables the examination of an “emerging theory against reality by sampling incidents that may challenge or elaborate its developing claims” (ibid). • The theoretical sampling method is “concerned with the refinement” as well as the “saturation of existing, and increasingly analytic categories” (ibid). • Theoretical sampling can be described as a “process of choosing new research sites or research cases to compare with one that has already been studied” (Wikipedia, 2009^b). • “Theoretical sampling is viewed as a technique of data triangulation” (ibid).
Theoretical coding	<p>According to Willig (2008, p. 36) theoretical coding entails “the application of a coding paradigm” (ibid). Willig describes a coding paradigm as a way to make the researcher aware of the manner “which categories may be linked with one another” (ibid).</p>
Theoretical saturation	<ul style="list-style-type: none"> • Suddaby (2006, p. 640) agrees with the views of Glaser and Strauss that “saturation is a practical outcome of a researcher’s assessment” of the strict application and significance of “an emerging theoretical model”. He mentions Glaser and Strauss’s decisive factors “for determining saturation”, namely: <ul style="list-style-type: none"> ▪ The “combination of the empirical limits of the data” (ibid). ▪ The importance of the theory’s incorporation and concreteness (ibid). ▪ The “theoretical sensitivity” of the “analyst’s” (ibid). • Willig (2008, p. 37) states that data collection and analysis will carry on “until theoretical saturation has been achieved”. The researcher will therefore continue this process “until no new categories can be identified and until new instances of variation of existing categories have ceased to emerge” (ibid). Willig (ibid) emphasises that theoretical saturation should be viewed as a goal that needs to be achieved.

The strategies explained in Table 2.6 are utilised by researchers “to identify, refine and integrate categories, and ultimately develop theory” (Willig, 2008, p. 35). Suddaby (2006, p. 634) points out that even skilled researchers may find it difficult to “saturate” the data collection and analysis process.

2.5.4 Grounded theory researchers' roles

Suddaby (2006, p. 640) emphasise the fact that researchers conducting Grounded theory need to explain “their positions in the research process”. The researcher can do this by embarking on the following measures:

- To “engage in ongoing self-reflection to ensure that they take personal biases, world-views, and assumptions into account while collecting, interpreting, and analyzing data” (ibid).
- The researcher must determine the relationship between “the quality of the contact between researcher and empirical site and the quality of the research produced” (ibid).

Suddaby (2006, p. 638) postulates that “the researcher is considered to be an active element of the research process, and the act of research has a creative component that cannot be delegated to an algorithm” (ibid). He furthermore states that “the researcher must make key decisions about which categories to focus on, where to collect the next iteration of data and, perhaps most importantly, the meaning to be ascribed to units of data” (ibid).

Chapter 3

Research design and methods

3.1 Introduction

In Chapter 3 the researcher explains the approach and methodology used in this study.

3.2 Participants

The participants involved in this study are 18 learners and a teacher from an Afrikaans primary school. The learners are girls and are all between the age of 12 and 13 years. They volunteered to be part of the school's newspaper editorial team under the supervision of the teacher (editor).

3.3 Research design

The research design relating to the research question is explained in Table 3.1.

3.4 Ethical considerations

3.4.1 Participants in the study

This study takes the form of generating a theory and focuses on information that should be incorporated in design principles (theory) for constructing a school newspaper. The researcher focuses on the process of constructing a school newspaper and not on the daily events wherein the participants partake.

The participants formed part of the editorial team of their own free will. Some participants in the study were minors; therefore the legal requirements for obtaining informed consent adhered to was the provision of consent forms to the legal guardians wherein permission was asked for the minors' participation. The editor was also provided with a consent form and requested to complete it.

Table 3.1: Research design

		Research Methods			
Research Question	Research Approach	Data gathering methods	Data analysis methods	Social network analysis	Participants
What principals can assist editors of school newspapers and primary school learners when undertaking the task of constructing a school newspaper?	Interpretive-Empirical-Qualitative	<p>Observations: A Video camera was used during the observations. The observations were conducted done during the editorial team’s scheduled meetings. The dates were:</p> <ul style="list-style-type: none"> • 29 April 2010 • 30 April 2010 • 4 May 2010 • 5 May 2010 • 7 May 2010 • 10 May 2010 • 12 May 2010 • 13 May 2010 • 14 May 2010 • 18 May 2010 • 20 May 2010 • 25 May 2010 • 26 May 2010 • 27 May 2010 • 28 May 2010 	<ul style="list-style-type: none"> • Videos were analysed with Atlas.ti. • Investigated data through initial open-coding. • Established themes and assigned initial codes in a first attempt to condense the mass of data into categories. • Axial coding ensured a review of initial coded themes. • By using selective coding previous data and codes were scanned. • Looked for comparisons and contrasts. 	Identify the social networks and indicate the networks in the form of a diagram.	<ul style="list-style-type: none"> • Editor • 18 editorial team members
		<p>Interview: The interview questions were based on and emerged from the data gathered during the observations. The editor (teacher) and the editorial team members (learners) were interviewed. The type of interviews were:</p> <ul style="list-style-type: none"> • An informal conversational interview with the editor. • A group interview with the editorial team members. <p>A video camera was used to gather the data. The interviews were conducted on 13 Augustus 2010.</p>	<ul style="list-style-type: none"> • Video was analysed with Atlas.ti. • Investigated data through initial open-coding. • Established themes and assigned initial codes in a first attempt to condense the mass of data into categories. • Axial coding ensured a review of initial coded themes. • By using selective coding previous data and codes will were scanned. • Looked for comparisons and contrasts. 		

The researcher took on the role as observer and did not facilitate or participate in the process of building and publishing a school newspaper. Participants were interviewed in an environment in which they could relax and that was out of school context, e.g. a coffee shop. They socialised with one another and therefore did not view the researcher as a teacher at their school. Before the interview was conducted, the researcher clearly stated that participation was voluntary and that participants were free to leave the interview at any stage and that they were not obliged to answer questions they were not willing to answer. Additional safeguards were taken to ensure voluntary participation, namely:

- The research process was explained to the minor participants by the editor.
- Their role as research participant was explained in detail by the editor.
- The significance of the informed consent was explained in detail. Thus, the participants had the freedom to withdraw from the research project at any stage and had the right to resist unwarranted intrusion.

3.4.2 Benefits to the participants

Benefits to participants of this study were the development of journalistic, photographic, editorial skills as well as possible career opportunities. The editor explained these benefits to the editorial team members.

3.4.3 Potential risks and harm to participants in this study

Potential risks depend on the emotional, intellectual and behavioural intelligence of the both the minor participants and the editor. Potential risks can influence participants' self-esteem, cause anxiety and resisting authority.

To minimise the risks the editor explained to the editorial team every member's role as well as the roles of the other editorial team members. The aim of the discussion was to address the risks of anxiety, resisting authority and preventing self-esteem problems.

Before the group interview was conducted, it was explained to the participants that although there might be an age difference between them, they were all part of the editorial team and everyone had of a special skill that enabled them to build and publish a school newspaper.

3.4.4 Extra safeguards to protect the well-being of participants

Participants were vulnerable because they were minors. The researcher familiarised herself with the potential vulnerabilities the participants might be confronted with. In this study the potential vulnerabilities might occur in the contexts (explained in paragraphs 3.5.4.1 – 3.5.4.2).

3.4.4.1 The principle of autonomy

The researcher aimed to recognise and respect the self-concept and the capacity for self-rule of learners in all decisions related to the research process. The researcher respected the wishes and decisions of the participants as well as their values and beliefs. The consent letters informed the parents or legal guardians that they had the right to voluntary consent or refusal; this was balanced by the recognition of the fact that the participants might have good reasons for not wanting to participate in the research, a fact that should not be ignored.

3.4.4.2 The principle of justice

The researcher strove not to be biased towards the participants on the basis of age, race, gender, culture or any other variables that were irrelevant to the research process.

The following guidelines were used to ensure justice was maintained:

- Ascertaining the existence of any specific legislation or legal principles governing the situation.
- Finding out if any procedures or codes of practice applied.
- Ensuring that the interests of the learners were adequately protected by their parents, guardians or any other competent person.
- Fully identifying and discussing the interests of the parties involved (the wishes of the learners should be elicited and fully taken into account).
- Ensuring that all that was done was in the interests of the learners.
- Taking privacy interests of the learners into account.
- Avoiding the disclosure of deeply private information or subjecting a learner to shame or embarrassment.
- Designing research in such a manner that the participants were informed and their consent obtained no matter how minimal the intrusion.
- Informing the learners involved in the research project of their right to confidentiality and the exceptions to this.

Chapter 4

Data gathering and analysis

4.1 Introduction

The researcher reports the findings of the data collected in this chapter.

4.2 Data gathering

The purpose of the data gathering of this study was to obtain information about the steps the members of a primary school newspaper utilise to create and publish their own school newspaper.

4.2.1 Data gathered relating to the editorial team

4.2.1.1 Data gathered through the medium of direct observation

As a direct observer the researcher was careful not to become a participant during the editorial meetings. The researcher strove to be as unobtrusive as possible as not to be biased during the observations. Before each observation the researcher made certain to be properly prepared with observation sheets and a clear idea of what to look for. The observation sheet contained specific headings for the following information (See Addendum A):

- Editorial meeting number
- Date of observation
- Duration of observation
- Team member's name
- The topic of the articles
- Notes
- Reflection on the notes taken after each observation

An observation schedule was compiled and information, relating to each observation, was incorporated under the following headings (See Addendum B):

- Date of observation
- Duration of observation
- Team member that was observed

- Observation sheet number

4.2.1.2 Data gathered by means of indirect observation

One video camera was utilised to capture the behaviour of the team members during the editorial meetings. A teacher from the participating school video-recorded the observations. Each editorial team member was observed twice at different times. The observation duration varied between 5 minutes to 25 minutes, depending on the planning schedule of each editorial member. An observation schedule was compiled and information, relating to each video-taped observation, was incorporated under the following headings (See Addendum B):

- Date of observation
- Duration of observation
- Team member that was observed
- Observation sheet number

4.2.1.3 Data gathered by means of interviews



The editorial team members were interviewed in a group. The group interview was video-recorded by a teacher of the participating school. The interview questions were divided into groups; each group consisted of two questions. The first question of each group focused on the importance of a specific component relating to the building and publishing of a school newspaper and the second question focused on the editorial team members' satisfaction with the specific component.

The editor was interviewed separately from the editorial team members. The interview was video-recorded by a teacher from the participating school. The editor was asked the same questions as the editorial team.

4.2.2 Analysis of direct observation data relating to Activity theory

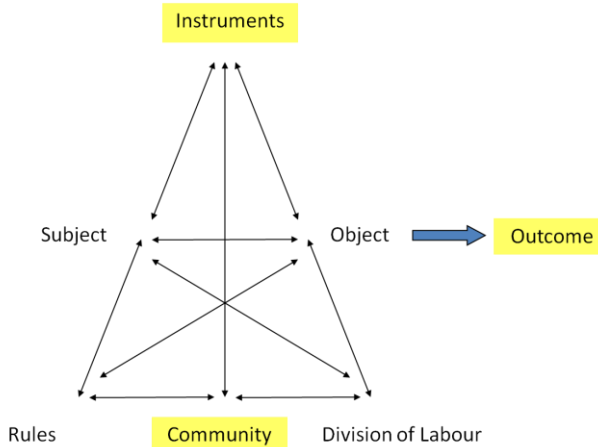
During the analysis of the data relating to Activity theory various communities or social networks were identified. A social network is defined as a construction consisting "of individuals" whom are linked by common interests or goals (Wikipedia, 2010). In paragraphs 4.2.2.1 – 4.2.2.3 the entities of the social networks are indicated in Table 4.1.

Table 4.1: Explanation of entities

Diagram	Explanation
	Editorial team member
	Editor

These entities are linked by lines (edges). Depending on the number of edges between the entities, a social network degree can be established. A social network graph consists of a set of connected entities and is then holistically known as nodes.

4.2.2.1 Analysis of direct observation data relating to the subject-object-activity



The highlighted areas on the diagram on the left indicate the subject-object-activity, outcome and community. These components are discussed in paragraphs 4.2.2.1 (a) - 4.2.2.1 (b).

The analysis of the data relating to subject-object-outcome-activity revealed two categories, namely **planning** and **evaluating** activities pertaining to articles.

4.2.2.1 (a) Analysis of data relating to the planning of articles

The analysis of data relating to the planning of articles includes the planning of the following:

- The textual content of articles
- The layout of the articles
- The photo layout of the articles
- The focus of cartoons
- The layout of cartoons
- The focus of questionnaires

Table 4.2 refers to the analysis relating to the planning of articles.

Table 4.2: Analysis relating to the planning of articles

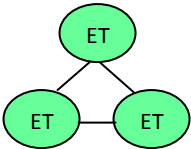
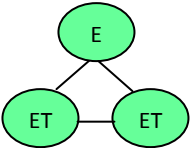
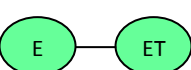



Analysis relating to the textual content of articles			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Conversation	Verbally		<p>Another editorial team member (ET) provides information to the two editorial members (ET). The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: Information</p>
Conversation	Verbally		<p>Editor (E) supports two editorial team members (ET) by providing them with advice and guidelines regarding the content of their articles. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: Support</p>
			<p>Editor (E) supports editorial team member (ET) by providing him/her with advice and guidelines regarding the content of his/her articles. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: Support</p>
Pencil and paper	Writing		<p>Editorial team member (ET) plans his/her articles. There is no social network, because the editorial team member worked independently on the planning of the articles. This particular event occurred on numerous occasions.</p> <p>Outcome: Articles</p>
<p>Interpretation: During the planning of the textual content of the articles one degree and three degree social networks were established when editorial team members worked dependently. When editorial team members worked independently on the textual content of the articles, no social networks were established.</p>			
Analysis relating to the layout of articles			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Data book and pencil	Writing		<p>Editorial team member (ET) planned the layout of his/her articles. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions.</p> <p>Outcome: Articles</p>
Single page	Writing		<p>Editorial team member (ET) planned the layout of his/her articles. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions.</p> <p>Outcome: Articles</p>

Table 4.2: Analysis relating to the planning of articles (continued)

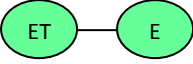


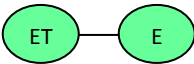

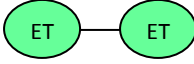
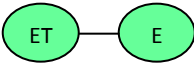
Analysis relating to the layout of articles			
With what/with which tool?	With what/with which tool?	With what/with which tool?	With what/with which tool?
Pencil, A4 page and notepad	Drawing pictures		Editorial team member (ET) explained the layout to the editor (E) and that the cartoons would be coloured in at home. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Cartoons
Pencil and paper	Drawing pictures		Editorial team member (ET) planned the layout of his/her cartoons. There is no social network, because the editorial team member worked independently on the planning of the layout of the cartoons. This particular event occurred on numerous occasions. Outcome: Cartoons
Pencil and paper	Writing		Editorial team member (ET) planned the layout of his/her articles. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions. Outcome: Articles
Pencil, A4 page and notepad	Writing and drawing pictures		Editor (E) supports editorial team member (ET) by providing advice and guidelines regarding the layout of the articles. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Layout of the articles
Pencil and notepad	Writing		Editorial team member (ET) planned the layout of his/her articles. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions. Outcome: Articles
	Writing and verbally		Editorial team member (ET) asked another editorial team member (ET) his/her opinion about the layout of the articles, the team members decided collectively about the layout. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Articles
	Verbally		Editorial team member (ET) explained the layout of the articles to the editor (E). The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Articles

Table 4.2: Analysis relating to the planning of articles (continued)







Analysis relating to the layout of articles			
With what/with which tool?	With what/with which tool?	With what/with which tool?	With what/with which tool?
Pencil and notepad	Writing and visually		Editorial team member (ET) planned the layout of his/her articles by drawing diagrams with keywords. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions. Outcome: Articles
Interpretation: While editorial team members planned the layout of the articles one degree social networks were established when editorial team members worked dependently. When editorial team members worked independently on the textual content of the articles, no social networks were established.			
Analysis relating to the photo layout of articles			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Writing pad	Writing		Editorial team member (ET) planned the photo layout of his/her articles. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions. Outcome: Layout of the articles
Interpretation: Editorial team members worked independently on the photo layout of the articles; no social networks were established.			
Analysis relating to the focus cartoons			
With what/with which tool?	Method	Person/s involved	Nature of involvement
A4 blank paper and pencil	Tabulating		Editorial team member (ET) decided about the focus of his/her cartoon by tabulating the key concepts that would be used to draw the cartoons. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions. Outcome: Cartoons
Interpretation: Editorial team members worked independently on the focus of the cartoons; therefore no social networks were established.			

Table 4.2: Analysis relating to the planning of articles (continued)

Analysis relating to the layout of the cartoons			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Ruler, pencil and paper	Visually – drawing pictures and diagrams.		Editorial team member (ET) planned the layout of his/her cartoons by drawing pictures and diagrams with keywords. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions. Outcome: Cartoons
Interpretation: Editorial team members worked alone on the layout of the cartoons; therefore no social networks were established.			
Analysis relating to the focus of the questionnaires			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Pencil and paper	Writing		Editorial team member (ET) planned the questions he/she would utilise when interviewing the teachers. There is no social network, because the editorial team member worked independently on the planning of the questions. This particular event occurred on numerous occasions. Outcome: Questions
Data book	Compiling – questions number one, two, three		Editorial team member (ET) planned the questions he/she would use when interviewing the teachers. There is no social network, because the editorial team member worked independently on the planning of the questions. This particular event occurred on numerous occasions. Outcome: Questions
Interpretation: Editorial team members worked independently on the focus of the questionnaires; no social networks were established.			

The interpretations regarding the planning of the articles are summarised in Table 4.3.

Table 4.3: Summary of interpretations relating to the planning of articles

Activity	Networks
The textual content of articles	During the planning of the textual content of the articles one degree and three degree social networks were established when editorial team members worked dependently. When editorial team members worked independently on the textual content of the articles, no social networks were established.
The layout of the articles	Editorial team members worked independently on the layout of the articles; no social networks were established.
The photo layout of the articles	Editorial team members worked independently on the layout of the articles; no social networks were established.

Table 4.3: Summary of interpretations relating to the planning of articles (continued)

Activity	Networks
The focus of cartoons	Editorial team members worked independently on the focus of the cartoons; no social networks were established.
The layout of cartoons	Editorial team members worked alone on the layout of the cartoons; no social networks were established.
The focus of questionnaires	Editorial team members worked independently on the focus of the questionnaires; no social networks were established.

4.2.2.1 (b) Analysis of data relating to the evaluation of articles

The analysis of data relating to the evaluation of articles includes the evaluation of the following:

- The textual content of articles
- The length of the articles
- The layout of the articles
- The photo layout of the articles
- The cartoons
- The questionnaires
- The team work between editorial members
- The completed articles

Table 4.4 refers to the analysis relating to the evaluation of the articles.

Table 4.4: Analysis relating to the evaluation of the articles



Analysis relating to the evaluation of the textual content of articles		
Method	Person/s involved	Nature of involvement
Proof-reading and editing of articles		Editorial team member (ET) proof-read and edited his/her articles. There is no social network, because the editorial team member proof-read and edited the articles without assistance. This particular event occurred on numerous occasions. Outcome: Articles
Written (rewrote questions that would-be utilised in the articles)		Editorial team member (ET) proof-read and edited the questions that would be used in the interview with the teachers. There is no social network, because the editorial team member proof-read and edited the questions without assistance. This particular event occurred on numerous occasions. Outcome: Questions
Interpretation: Editorial team members worked independently on the textual content of the articles; no social networks were established.		

Table 4.4: Analysis relating to the evaluation of the articles (continued)

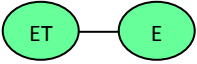
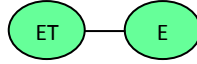
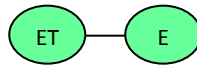
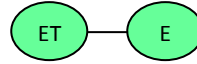
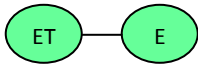
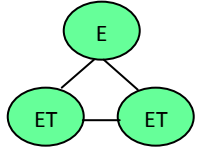
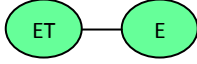
Analysis of the evaluation of the length of the articles		
Method	Person/s involved	Nature of involvement
Verbally		The editorial team member (ET) asked the editor (E) if the information used in the articles was adequate. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Articles
Interpretation: Editorial team members worked dependently during the evaluation of the length of the articles; therefore one degree social networks were established.		
Analysis relating to the evaluation of the layout of the articles		
Method	Person/s involved	Nature of involvement
Verbally		Editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the layout of his/her articles. The degree of this social network was one. This particular social network occurred on numerous occasions. Outcome: The layout of the articles
Interpretation: Editorial team members worked dependently during the evaluation of the layout of the articles; therefore one degree social networks were established.		
Analysis relating to the evaluation of the layout of the articles		
Method	Person/s involved	Nature of involvement
Interpretation: Editorial team members worked dependently during the evaluation of the layout of the articles; therefore one degree social networks were established.		
Analysis relating to the evaluation the photo layout		
Method	Person/s involved	Nature of involvement
Verbally		The editorial team member (ET) explained to the editor (E) that another editorial team member was responsible for taking the photographs. The editorial team member explained the photographs that he/she used in the articles and the significance of the photographs. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Photographs
Interpretation: Editorial team members worked dependently during the evaluation of the photo layout of the articles; therefore one degree social networks were established.		
Analysis relating to the evaluation of the cartoons		
Method	Person/s involved	Nature of involvement
Verbally		The editorial team member (ET) explained to the editor (E) the cartoons that he/she drew for the school news paper and the significance of these. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Cartoons
Interpretation: Editorial team members worked dependently during the evaluation of the cartoons; therefore one degree social networks were established.		

Table 4.4: Analysis relating to the evaluation of the articles (continued)

Analysis relating to the evaluation of the questionnaires		
Method	Person/s involved	Nature of involvement
Verbally		<p>The editorial team member (ET) explained the content of the questionnaires to the editor (E). The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: Contents of the questionnaires to the editor.</p>
<p>Interpretation: Editorial team members worked dependently during the evaluation of the questionnaires; therefore one degree social networks were established.</p>		
Analysis relating to the evaluation regarding the team work between editorial members		
Method	Person/s involved	Nature of involvement
Verbally		<p>The editor (E) asked two of the editorial team members (ET), who had worked together on articles, whether they enjoyed working together. The two editorial team members responded that they liked working as a team. The degree of this social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: Determining whether editorial team members enjoyed working together.</p>
<p>Interpretation: When the editor wanted to establish the editorial team members' thoughts on working together on articles, three degree social networks were established.</p>		
Analysis relating to the evaluation of the completed articles		
Method	Person/s involved	Nature of involvement
Verbally		<p>The editorial team member (ET) explained the completed articles to the editor (E). The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: Explaining the completed articles to the editor.</p>
<p>Interpretation: Editorial team members worked dependently during the evaluation of the completed articles; therefore one degree social networks were established.</p>		

The interpretations regarding the evaluation of the articles are summarised in Table 4.5.

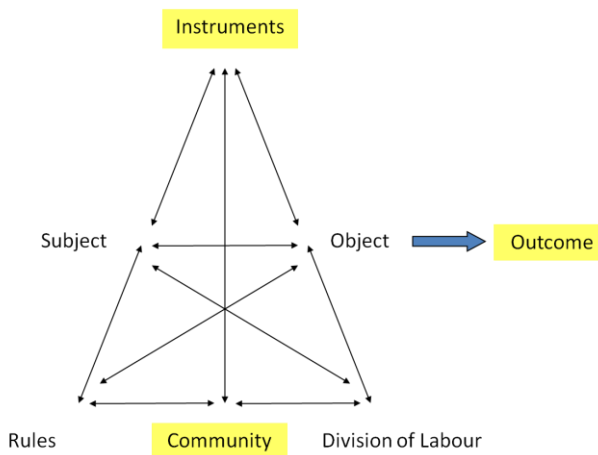
Table 4.5: Summary of interpretations relating to the evaluation of articles

Activity	Networks
The textual content of articles	Editorial team members worked independently on the textual content of the articles; no social networks were established.
The length of the articles	Editorial team members worked dependently during the evaluation of the length of the articles; therefore one degree social networks were established.

Table 4.5: Summary of interpretations relating to the evaluation of articles (continued)

Activity	Networks
The layout of the articles	Editorial team members worked dependently during the evaluation of the layout of the articles; therefore one degree social networks were established.
The photo layout of the articles	Editorial team members worked dependently during the evaluation of the photo layout of the articles; therefore one degree social networks were established.
The cartoons	Editorial team members worked dependently during the evaluation of the cartoons; therefore one degree social networks were established.
The questionnaires	Editorial team members worked dependently during the evaluation of the questionnaires; therefore one degree social networks were established.
Team work	When the editor wanted to establish the editorial team members' thoughts on working together on articles, three degree social networks were established.
Completed articles	Editorial team members worked dependently during the evaluation of the completed articles; therefore one degree social networks were established.

4.2.2.2 Analysis of data relating to the tools



The highlighted areas on the diagram on the left indicate the instruments, community and outcome. These components are discussed in paragraphs 4.2.2.2 (a) - 4.2.2.2 (b).

The analysis of the data relating to tools used to plan and create articles revealed two categories, namely **paper-based tools** and **digital tools**.

4.2.2.2 (a) Analysis of data relating to the paper-based tools

The following data relating to paper-based tools were captured:

- Planning of articles
- Layout of articles
- Planning of cartoons
- Constructing questionnaires
- Consulting a dictionary

Table 4.6 refers to the analysis relating to the paper-based tools.

Table 4.6: Analysis relating to the paper-based tools



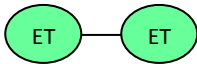
Analysis relating to the paper-based tools used during the planning of the articles			
With what/which tool?	Method	Person/s involved	Nature of involvement
Paper	Writing		Editorial team member (ET) planned his/her articles. There is no social network, because the editorial team member worked independently on the planning of the articles. The event occurred numerous times. Outcome: Articles
Data book and pencil			
Pen and paper			
Note pad			
Note pad and pencil			
Note pad that was placed in a file			
Interpretation: Editorial team members worked independently on the planning the articles; no social networks were established.			
Analysis relating to the paper-based tools used during the layout of articles			
With what/which tool?	Method	Person/s involved	Nature of involvement
Note pad and pencils	Writing		Editorial team member (ET) used note pad and pencils to plan the layout of the articles by drawing diagrams and pictures with keywords in the diagrams. There is no social network, because the editorial team member worked independently on the layout of the articles. The event occurred numerous times. Outcome: Articles
Interpretation: Editorial team members worked independently on the layout of the articles; no social networks were established.			

Table 4.6: Analysis relating to the paper-based tools (continued)

Analysis relating to the paper-based tools used for planning cartoons			
With what/which tool?	Method	Person/s involved	Nature of involvement
A4-Blank paper	Drawing pictures and diagrams	ET	Editorial team member (ET) planned the cartoons by drawing diagrams and pictures with keywords in the diagrams. There is no social network, because the editorial team member worked independently on the planning of the cartoon. The event occurred numerous times. Outcome: Cartoons
Ruler and pencil	Drawing frames around the cartoons	ET	Editorial team member (ET) planned the cartoons by drawing frames around the different cartoons. There is no social network, because the editorial team member worked independently on the planning of the cartoons. The event occurred numerous times. Outcome: Cartoons
Colouring pencils	Colouring-in of cartoons	ET	Editorial team member (ET) coloured the cartoons. There is no social network, because the editorial team member worked independently on the colouring-in of the cartoons. The event occurred numerous times. Outcome: Cartoons
Interpretation: Editorial team members worked alone on the planning of the cartoons; no social networks were established.			
Analysis relating to the paper-based tools used during the constructing of questionnaires			
With what/which tool?	Method	Person/s involved	Nature of involvement
Data book	Writing	ET	The editorial team member (ET) used a data book to plan the questions of the interviews with teachers. The editorial team member also incorporated the answers to the questions in the data book. There is no social network, because the editorial team member worked independently on constructing the questionnaires. The event occurred numerous times. Outcome: Questionnaires

Table 4.6: Analysis relating to the paper-based tools (continued)

Analysis relating to the paper-based tools used during the constructing of questionnaires			
With what/which tool?	Method	Person/s involved	Nature of involvement
Interpretation: Editorial team members worked independently on constructing questionnaires; no social networks were established.			
Analysis relating the consulting a dictionary			
With what/which tool?	Method	Person/s involved	Nature of involvement
Bilingual dictionary	Visually		Two editorial team members (ET) consulted a bilingual dictionary to find the most appropriate words to utilise in their articles. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Accurate words
Interpretation: Editorial team members worked together when they consulted a dictionary and therefore one degree social networks were established.			

The interpretations regarding the paper-based tools articles are summarised in Table 4.7.

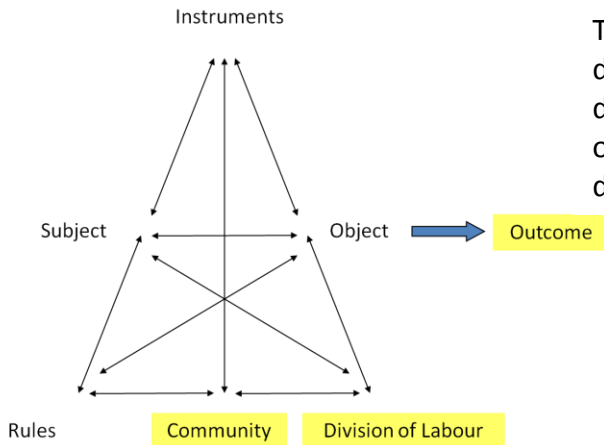
Table 4.7: Summary of interpretations relating to the paper-based tools

Activity	Networks
Planning of articles	Editorial team members worked independently on the planning the articles; no social networks were established.
Layout of articles	Editorial team members worked independently on the layout of the articles; no social networks were established.
Planning of cartoons	Editorial team members worked alone on the planning of the cartoons; no social networks were established.
Constructing questionnaires	Editorial team members worked independently on constructing questionnaires; no social networks were established.
Consulting a dictionary	Editorial team members worked together when they consulted a dictionary and therefore one degree social networks were established.

4.2.2.2 (b) Analysis of data relating to the digital tools

During the observation of the editorial team members no utilisation of digital tools was observed.

4.2.2.3 Analysis of data relating to the division of labour



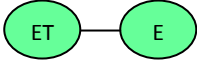
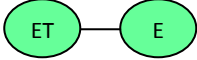
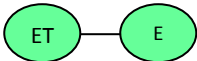
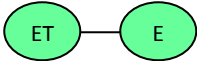
The highlighted areas on the diagram on the left indicate the division of labour, community and outcome. These components are discussed in Table 4.5.

Editorial team members divided some of their responsibilities among peers, parents, teachers and themselves. Table 4.8 refers to the data captured relating to the division of labour regarding the taking of photographs, proof-reading and editing of articles.

Table 4.8: Analysis relating the division of labour

Analysis relating to the division of labour		
Relating to the	Person/s involved	Nature of involvement
Photographs		Editorial team member (ET) explained to the editor (E) that he/she had asked parents to take photographs. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Photographs
		Editorial team member (ET) explained to the editor (E) that he/she had asked another editorial team member (ET) to take photographs. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Photographs
		Editorial team member (ET) explained to the editor (E) that he/she had asked other learners to take photographs. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Photographs

Table 4.8: Analysis relating the division of labour (continued)

Analysis relating to the division of labour		
Relating to the	Person/s involved	Nature of involvement
Photographs		Editorial team member (ET) asked the editor (E) to take photographs. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Photographs
		Editorial team member (ET) explained to the editor (E) that he/she had asked a teacher to take photographs. The degree of this social network was one. This particular social network occurred on numerous occasions. Outcome: Photographs
		Editorial team member (ET) explained to the editor (E) that he/she had asked another adult to take photographs. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Photographs
Proof-reading and editing of articles		Editorial team member (ET) explained to editor (E) that he/she had asked his/her parents to proof-read and edits the articles. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Articles
Interpretation: During the division of labour activity one degree social networks were established when editorial team members worked dependently.		

The interpretation regarding the division of labour is summarised in Table 4.9.

Table 4.9: Summary of interpretations relating to the division of labour

Activity	Networks
Division of labour	During the division of labour activity one degree social networks were established when editorial team members worked dependently.

4.2.3 Analysis of direct observation data relating to 21st Century Skills

The analysis of the data relating to the 21st Century Skills was done with the three core 21st Century Skills as the structure. These 21st Century Skills are:

- Learning and Innovation skills
- Information, Media and Technology skills
- Life and Career skills

4.2.3.1 Analysis of data relating to Learning and Innovation skills

The following data relating to Learning and Innovation skills were captured:

- Solving problems
- Collaborating with others
- Working creatively with others
- Communicating clearly
- Thinking creatively

Table 4.10 refers to the analysis relating to Learning and Innovation skills.

Table 4.10: Analysis relating to Learning and Innovation skills

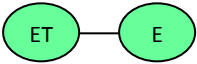
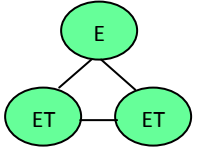
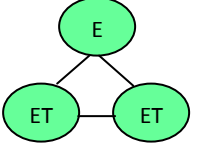
Analysis relating to the solving of problems			
Relating to:	Method	Person/s involved	Nature of involvement
Completed articles	Verbally		<p>The editorial team member (ET) explained the completed articles to the editor (E). The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Identify and ask significant questions that clarify various points of view and lead to better solutions” (Partnership for 21st Century Skills, 2004).</p>
Consulting a dictionary	Verbally		<p>Editor (E) supported two editorial team members (ET) by providing them with a bilingual dictionary. The degree of the social network was three. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Identify and ask significant questions that clarify various points of view and lead to better solutions” (ibid).</p>
Content of articles	Verbally		<p>Editor (E) supported two editorial team members (ET) by providing them with advice and guidelines regarding the content of their articles. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Identify and ask significant questions that clarify various points of view and lead to better solutions” (ibid).</p>

Table 4.10: Analysis relating to Learning and Innovation skills (continued)

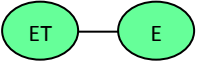
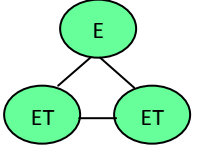
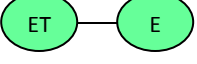
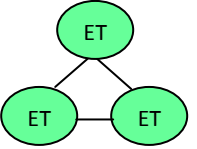
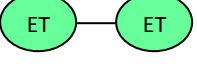
Analysis relating to the solving of problems			
Relating to:	Method	Person/s involved	Nature of involvement
Content of articles	Verbally		<p>Editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the content of his/her articles. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Identify and ask significant questions that clarify various points of view and lead to better solutions” (ibid).</p>
Layout of articles	Verbally		<p>Editor (E) supported two editorial team members (ET) by providing them with advice and guidelines regarding the layout of their articles. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Identify and ask significant questions that clarify various points of view and lead to better solutions” (ibid).</p>
			<p>Editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the layout of his/her articles. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Identify and ask significant questions that clarify various points of view and lead to better solutions” (ibid).</p>
<p>Interpretation: Editorial team members worked dependently on the solving of problems and one degree and three degree social networks were established.</p>			
Analysis relating to collaborating with others			
Relating to:	Method	Person/s involved	Nature of involvement
Articles	Verbally		<p>Another editorial team member (ET) helped two editorial team members (ET) to decide what the content of the articles should be. The degree of this social network is two. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Assuming shared responsibility for collaborative work, and valuing the individual contributions made by each team member” (ibid).</p>
	Verbally and writing		<p>Editorial team members (ET) planned the layout of their articles. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Assuming shared responsibility for collaborative work, and valuing the individual contributions made by each team member” (ibid).</p>

Table 4.10: Analysis relating to Learning and Innovation skills (continued)

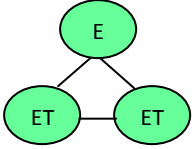
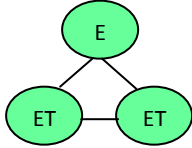
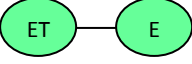
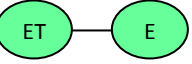
Analysis relating to collaborating with others			
Relating to:	Method	Person/s involved	Nature of involvement
Title	Verbally and visually		<p>Editor (E) supported two editorial team members (ET) by providing them with a bilingual dictionary. The degree of the social network was three. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Assuming shared responsibility for collaborative work, and valuing the individual contributions made by each team member” (ibid).</p>
Layout of articles	Verbally		<p>Editorial team members (ET) explained the layout of the articles to the editor (E). The degree of the social network was three. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Assuming shared responsibility for collaborative work, and valuing the individual contributions made by each team member” (ibid).</p>
<p>Interpretation: When editorial team members collaborated with one another, one degree and three degree social networks were established.</p>			
Analysis relating working creatively with others			
Relating to:	Method	Person/s involved	Nature of involvement
Cartoons	Verbally		<p>The editorial team member (ET) explained the cartoons to the editor (E). The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> • “Develop, implement and communicate new ideas to others effectively” (ibid). • “Being open and responsive to new and diverse perspectives, incorporate group input and feedback into work” (ibid).
Analysis relating working creatively with others			
Relating to:	Method	Person/s involved	Nature of involvement
Completed articles	Verbally		<p>The editorial team member (ET) explained the completed articles to the editor (E). The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Develop, implement and communicate new ideas to others effectively” (ibid). • “Being open and responsive to new and diverse perspectives, incorporate group input and feedback into work” (ibid).

Table 4.10: Analysis relating to Learning and Innovation skills (continued)

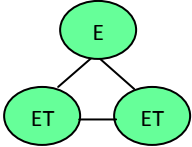
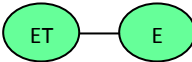
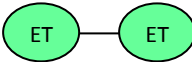
Analysis relating working creatively with others			
Relating to:	Method	Person/s involved	Nature of involvement
Layout of articles	Verbally		<p>Editorial team members (ET) explained the layout of the articles to the editor (E). The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Develop, implement and communicate new ideas to others effectively” (ibid). • “Being open and responsive to new and diverse perspectives, incorporate group input and feedback into work” (ibid).
			<p>Editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the layout of his/her articles. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Develop, implement and communicate new ideas to others effectively” (ibid). • “Being open and responsive to new and diverse perspectives, incorporate group input and feedback into work” (ibid).
Layout of articles	Verbally and writing		<p>Editorial team members (ET) plan the layout of their articles. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Develop, implement and communicate new ideas to others effectively” (ibid). • “Being open and responsive to new and diverse perspectives, incorporate group input and feedback into work” (ibid).

Table 4.10: Analysis relating to Learning and Innovation skills (continued)

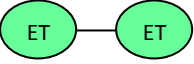
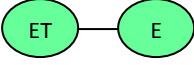
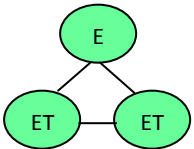
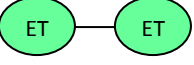
Analysis relating working creatively with others			
Relating to:	Method	Person/s involved	Nature of involvement
Layout of photographs	Verbally and writing		<p>Editorial team members (ET) planned the layout of their photographs. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> “Develop, implement and communicate new ideas to others effectively” (ibid). “Being open and responsive to new and diverse perspectives, incorporate group input and feedback into work” (ibid).
Questionnaire	Verbally		<p>The editorial team member (ET) explained the questionnaires to the editor (E). The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> “Develop, implement and communicate new ideas to others effectively” (ibid). “Being open and responsive to new and diverse perspectives, incorporate group input and feedback into work” (ibid).
Title	Verbally and visually		<p>Editor (E) supported two editorial team members (ET) by providing them with a bilingual dictionary. The degree of the social network was three. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> “Develop, implement and communicate new ideas to others effectively” (ibid). “Being open and responsive to new and diverse perspectives, incorporate group input and feedback into work” (ibid).
	Verbally and writing		<p>Two editorial team members (ET) decided to use the school logo to visually enhance their title’s layout. They decided to go to the school’s webpage and would copy and paste the logo. The degree of the social network is three. This particular social network only occurred only once.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> “Develop, implement and communicate new ideas to others effectively” (ibid). “Being open and responsive to new and diverse perspectives, incorporate group input and feedback into work” (ibid).
<p>Interpretation: When editorial team members worked creatively with others, one degree and three degree social networks were established.</p>			

Table 4.10: Analysis relating to Learning and Innovation skills (continued)

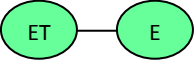
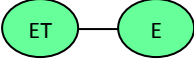
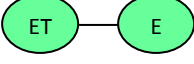
Analysis relating to clear communication			
Relating to:	Method	Person/s involved	Nature of involvement
Cartoons	Verbally		<p>The editorial team member (ET) explained the cartoons to the editor (E). The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “To use communication for a range of purpose, e.g. to inform, instruct, motivate and persuade” (ibid). • “Articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts” (ibid).
Completed articles			<p>The editorial team member (ET) explains the completed articles to the editor (E). The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “To use communication for a range of purpose, e.g. to inform, instruct, motivate and persuade” (ibid). • “Articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts” (ibid).
Analysis relating to clear communication			
Relating to:	Method	Person/s involved	Nature of involvement
Questionnaire			<p>The editorial team member (ET) explained the questionnaires to the editor (E). The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “To use communication for a range of purpose e.g. to inform, instruct, motivate and persuade” (ibid). • “Articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts” (ibid).
Interpretation: When editorial members communicated clearly with others, one degree social networks were established.			

Table 4.10: Analysis relating to Learning and Innovation skills (continued)




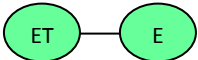

Analysis relating to thinking creatively			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Articles	Proof-reading and editing of articles		<p>Editorial team member (ET) proof-read and edited his/her articles. There is no social network, because the editorial team member proof-read and edited the articles without help. There is no social network present. This particular event occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).
	Writing		<p>Editorial team member (ET) planned his/her articles by chronologically organising the information. There is no social network present. This particular event occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).
	Writing, drawing pictures		<p>Editorial team member (ET) planned his/her articles by drawing pictures with keywords under the pictures. There is no social network present. This particular event occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).
Cartoons	Verbally		<p>The editorial team member (ET) explained the cartoons to the editor (E). The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).
	Writing, tabulating, diagrams		<p>Editorial team member (ET) tabulated the information that would be utilised to draw the cartoons. Diagrams/dialog boxes were drawn with key words in them. There is no social network present. This particular event occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).

Table 4.10: Analysis relating to Learning and Innovation skills (continued)

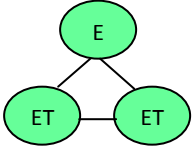

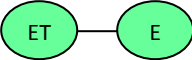

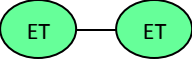

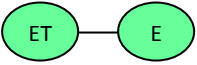

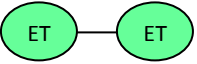
Analysis relating to thinking creatively			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Consulting a dictionary	Verbally		<p>Editor (E) supported two editorial team members (ET) by providing them with a bilingual dictionary. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).
Information	Writing		<p>Editorial team member (ET) organised the information of his/her articles under different headings. There is no social network present. This particular event occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).
Layout of articles	Verbally		<p>Editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the layout of his/her articles. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).
	Verbally and writing		<p>Editorial team member (ET) planned the layout of their photographs. There is no social network present. This particular event occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).
Layout of photographs	Verbally and writing		<p>Editorial team members (ET) planned the layout of their photographs. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).

Table 4.10: Analysis relating to Learning and Innovation skills (continued)

Analysis relating to thinking creatively			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Layout of photographs	Verbally and writing		<p>Editorial team member (ET) planned the layout of his/her photographs. There is no social network present. This particular event occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).
Questionnaire	Verbally		<p>The editorial team member (ET) explained the questionnaires to the editor (E). The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).
	Written (rewrites questions that will be used in the articles)		<p>Editorial team member (ET) proof-read and edited the questions that would be used in the interview with the teachers. There is no social network, because the editorial team member proof-read and edited the questions without help. This particular event occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).
Title	Verbally and writing		<p>Two editorial team members (ET) decided to use the school logo to visually enhance their title’s layout. They decided to go to the school’s webpage and would copy and paste the logo. The degree of the social network is two. This particular social network occurred only once.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).
<p>Interpretation: When editorial team members thought creatively and worked dependently, one degree and three degree social networks were established. When editorial team members worked independently on their articles, no social networks were established.</p>			

The interpretation regarding Learning and Innovation skills is summarised in Table 4.11.

Table 4.11: Summary of interpretations relating to Learning and Innovation skills

Skill	Networks
Solving problems	During the solving of problems, one degree and three degree social networks were established when editorial team members worked dependently.
Collaborating with others	When editorial team members collaborated with others, one degree and three degree social networks were established.
Working creatively with others	When editorial team members worked creatively with others, one degree and three degree social networks were established.
Communicating clearly	When editorial members communicated clearly with others, one degree social networks were established.
Thinking creatively	When editorial team members thought creatively and worked dependently, one degree and three degree social networks were established. When editorial team members worked independently on their articles, no social networks were established.

4.2.3.2 Analysis of data relating to Information, Media and Technology skills

The following data relating to Information, Media and Technology skills were captured:

- Accessing and evaluating information
- Creating media products (no creation of media products was observed)
- Applying technology effectively (no application of media products was observed)

Table 4.12 refers to the analysis relating to Information, Media and Technology skills.

Table 4.12: Analysis relating to Information, Media and Technology skills


Analysis relating to accessing and evaluation of information			
Relating to:	Method	Person/s involved	Nature of involvement
Articles	Proof-reading and editing of articles	 ET	Editorial team member (ET) proof-read and edited his/her articles. There is no social network, because the editorial team member proof-read and edited the articles without help. This particular event occurred on numerous occasions. Outcomes: <ul style="list-style-type: none"> • “Access information efficiently (time) and effectively (sources)” (Partnership for 21st Century Skills, 2004). • “Evaluate information critically and competently” (ibid).

Table 4.12: Analysis relating to Information, Media and Technology skills (continued)

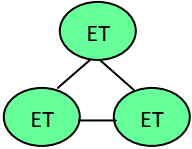
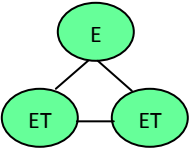
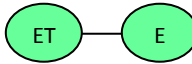
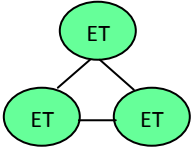
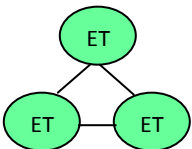
Analysis relating to accessing and evaluation of information			
Relating to:	Method	Person/s involved	Nature of involvement
Articles	Verbally		<p>Another editorial team member (ET) helped two editorial team members (ET) to decide what the content of the articles should be. The degree of this social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> “Access information efficiently (time) and effectively (sources)” (ibid). “Evaluate information critically and competently” (ibid).
Content of articles	Verbally		<p>Editor (E) supported two editorial team members (ET) by providing them with advice and guidelines regarding the content of their articles. The degree of the social network was three. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> “Access information efficiently (time) and effectively (sources)” (ibid). “Evaluate information critically and competently” (ibid).
			<p>The editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the content of his/her articles. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> “Access information efficiently (time) and effectively (sources)” (ibid). “Evaluate information critically and competently” (ibid).
Information	Verbally		<p>Editorial team members (ET) explained that they had asked another editorial team member about his/her experience or view on the workshop the entire editorial team attended. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> “Access information efficiently (time) and effectively (sources)” (ibid). “Evaluate information critically and competently” (ibid).
Information	Verbally		<p>Another editorial team member (ET) helped two editorial team members (ET) by providing them with information regarding the topic of their articles. The degree of this social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> “Access information efficiently (time) and effectively (sources)” (ibid). “Evaluate information critically and competently” (ibid).

Table 4.12: Analysis relating to Information, Media and Technology skills (continued)

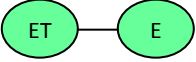
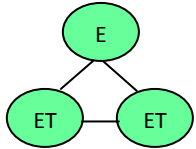
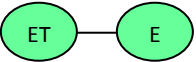
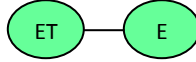

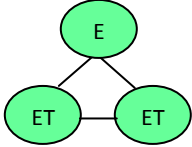
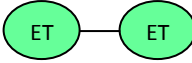
Analysis relating to accessing and evaluation of information			
Relating to:	Method	Person/s involved	Nature of involvement
Layout of articles	Verbally		<p>The editor (E) supported the editorial team member (ET) by providing him/her with advice and guidelines regarding the layout of his/her articles. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Access information efficiently (time) and effectively (sources)” (ibid). • “Evaluate information critically and competently” (ibid).
			<p>The editor (E) supported two editorial team members (ET) by providing them with advice and guidelines regarding the layout of their articles. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Access information efficiently (time) and effectively (sources)” (ibid). • “Evaluate information critically and competently” (ibid).
			<p>The editor (E) supported the editorial team member (ET) by providing him/her with advice and guidelines regarding the layout of his/her articles. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Access information efficiently (time) and effectively (sources)” (ibid). • “Evaluate information critically and competently” (ibid).
Photographs	Verbally		<p>Editorial team member (ET) explained to editor (E) who took the photographs. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Access information efficiently (time) and effectively (sources)” (ibid). • “Evaluate information critically and competently” (ibid).
Questionnaire	Written (rewrites questions that will be used in the articles)		<p>Editorial team member (ET) proof-read and edited the questions that would be used in the interview with the teachers. There is no social network, because the editorial team member proof-read and edited the questions without help. This particular event occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Access information efficiently (time) and effectively (sources)” (ibid). • “Evaluate information critically and competently” (ibid).

Table 4.12: Analysis relating to Information, Media and Technology skills (continued)

Analysis relating to accessing and evaluation of information			
Relating to:	Method	Person/s involved	Nature of involvement
Title	Verbally and visually	 <pre> graph TD E((E)) --- ET1((ET)) E --- ET2((ET)) ET1 --- ET2 </pre>	<p>The editor (E) supported two editorial team members (ET) by providing them with a bilingual dictionary. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Access information efficiently (time) and effectively (sources)” (ibid). • “Evaluate information critically and competently” (ibid).
	Verbally and writing	 <pre> graph LR ET1((ET)) --- ET2((ET)) </pre>	<p>Two editorial team members (ET) decided to use the logo of the school to visually enhance their title’s layout. They decided to go to the school’s webpage and would copy and paste the logo. The degree of the social network is two. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Access information efficiently (time) and effectively (sources)” (ibid). • “Evaluate information critically and competently” (ibid).
<p>Interpretation: When editorial team members accessed and evaluated information and worked dependently, one degree and three degree social networks were established. When editorial team members worked independently on their articles, no social networks were established.</p>			

The interpretation regarding Information, Media and Technology skills is summarised in Table 4.13.

Table 4.13: Summary of interpretation relating to Information, Media and Technology skills

Skill	Networks
Accessing and evaluating information	When editorial team members accessed and evaluated information and worked dependently, one degree and three degree social networks were established. When editorial team members worked independently on their articles, no social networks were established.

4.2.3.3 Analysis of data relating to Life and Career skills

The following data relating to Life and Career skills were captured:

- Adapting to change
- Interacting effectively with others

- Working independently
- Guiding and leading others

Table 4.14 refers to the analysis relating to Life and Career skills.

Table 4.14: Analysis relating to Life and Career skills

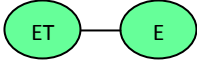
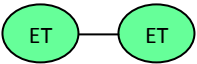
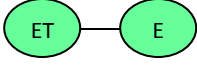
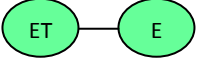
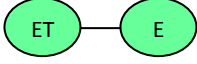
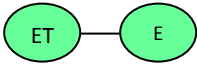
Analysis relating to adapting to change			
Relating to:	Method	Person/s involved	Nature of involvement
Photographs	Verbally		Editorial team member (ET) explained to the editor (E) that he/she had asked other parents to take photographs. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: “Adapt to various roles, job responsibilities, schedules and contexts” (Partnership for 21st Century Skills, 2004).
			Editorial team member (ET) asked another editorial team member (ET) to take photographs. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: “Adapt to various roles, job responsibilities, schedules and contexts” (ibid).
			Editorial team member (ET) explained to the editor (E) that he/she had asked other learners to take photographs. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: “Adapt to various roles, job responsibilities, schedules and contexts” (ibid).
			Editorial team member (ET) asked the editor (E) to take photographs. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: “Adapt to various roles, job responsibilities, schedules and contexts” (ibid).
			Editorial team member (ET) explained to the editor (E) that he/she had asked a teacher to take photographs. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: “Adapt to various roles, job responsibilities, schedules and contexts” (ibid).
Photographs	Verbally		Editorial team member (ET) explained to the editor (E) that he/she had asked another adult to take photographs. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: “Adapt to various roles, job responsibilities, schedules and contexts” (ibid).

Table 4.14: Analysis relating to Life and Career skills (continued)

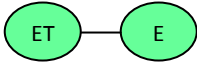
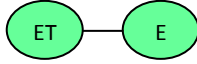
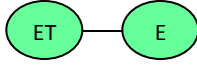
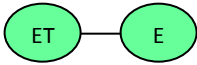
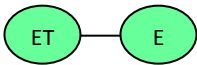
Analysis relating to adapting to change			
Relating to:	Method	Person/s involved	Nature of involvement
Proof-reading and editing of articles	Verbally		<p>Editorial team member (ET) explained to the editor that he/she had asked his/her parents to proof-read and edit the articles. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Adapt to various roles, job responsibilities, schedules and contexts” (ibid).</p>
<p>Interpretation: When editorial team members adapted to change and worked dependently, one degree social networks were established.</p>			
Analysis relating to interacting effectively with others			
Relating to	Method	Person/s involved	Nature of involvement
Cartoons	Verbally		<p>The editorial team member (ET) explained to the editor (E) the cartoons that he/she drew for the school newspaper and the significance of the cartoons. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Know when it is appropriate to listen and when to speak” (ibid).</p>
Completed articles			<p>The editorial team member (ET) explained the completed articles to the editor (E). The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Know when it is appropriate to listen and when to speak” (ibid).</p>
Information			<p>The editorial team member (ET) asked the editor (E) if the information used in the articles was adequate. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Know when it is appropriate to listen and when to speak” (ibid).</p>
Layout of articles			<p>The editor (E) supported an editorial team member (ET) by providing him/her with advice and guidelines regarding the layout of his/her articles. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Know when it is appropriate to listen and when to speak” (ibid).</p>

Table 4.14: Analysis relating to Life and Career skills (continued)

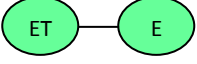
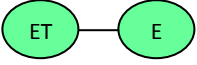
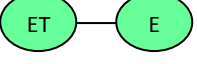
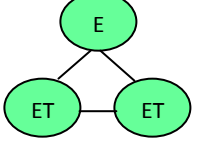

Analysis relating to interacting effectively with others			
Relating to	Method	Person/s involved	Nature of involvement
Photographs	Verbally		<p>The editorial team member (ET) explained to the editor (E) that another editorial team member was responsible for taking the pictures. The editorial team member explained the photographs that he/she used in the articles and the significance of the pictures. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Know when it is appropriate to listen and when to speak” (ibid).</p>
Proof-reading and editing of articles			<p>Editorial team member (ET) explained to the editor (E) that he/she had asked his/her parents to proof-read and edit the articles. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Know when it is appropriate to listen and when to speak” (ibid).</p>
Questionnaire			<p>The editorial team member (ET) explained the content of the questionnaires to the editor (E). The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Know when it is appropriate to listen and when to speak” (ibid).</p>
Team work			<p>The editor (E) asked two of the editorial team members (ET), who worked together on articles, whether they enjoyed working together. The two editorial team members responded that they enjoyed working as a team. The degree of this social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Know when it is appropriate to listen and when to speak” (ibid).</p>
<p>Interpretation: When editorial team members interacted effectively with others, one degree and three degree social networks were established.</p>			
Analysis relating to working independently			
Relating to	Method	Person/s involved	Nature of involvement
Articles	Proof-reading and editing of articles		<p>Editorial team member (ET) proof-read and edited his/her articles. There is no social network, because the editorial team member proof-read and edited the articles without help. This particular event occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete tasks without direct oversight” (ibid).</p>

Table 4.14: Analysis relating to Life and Career skills (continued)





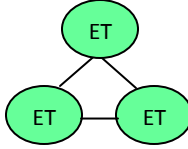

Analysis relating to working independently			
Relating to	Method	Person/s involved	Nature of involvement
Articles	Writing		<p>Editorial team member (ET) planned his/her articles. There is no social network, because the editorial team member worked independently on the planning of the articles This particular event occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete tasks without direct oversight” (ibid).</p>
Cartoons	Drawing pictures		<p>Editorial team member (ET) planned the layout of his/her cartoons. There is no social network, because the editorial team member worked independently on the planning of the layout of the cartoons. This particular event occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete tasks without direct oversight” (ibid).</p>
	Tabulating		<p>Editorial team member (ET) decided about the focus of his/her cartoon by tabulating the key concepts that would be utilised to draw the cartoons. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete tasks without direct oversight” (ibid).</p>
Cartoons	Visually – drawing pictures and diagrams.		<p>Editorial team member (ET) planned the layout of his/her cartoons by drawing pictures and diagrams with keywords. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete tasks without direct oversight” (ibid).</p>
Information	Verbally		<p>Another editorial team member (ET) provided information to the two editorial members (ET). The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete tasks without direct oversight” (ibid).</p>
Layout of articles	Writing		<p>Editorial team member (ET) planned the layout of his/her articles. There is no social network, because the editorial team member worked independently on the planning of the layout This particular event occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete tasks without direct oversight” (ibid).</p>

Table 4.14: Analysis relating to Life and Career skills (continued)

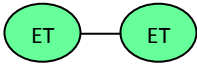




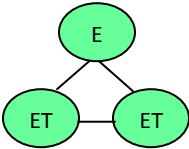
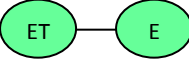
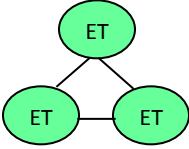
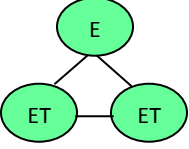
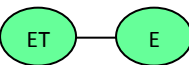
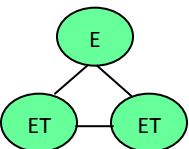
Analysis relating to working independently			
Relating to	Method	Person/s involved	Nature of involvement
Layout of articles	Writing and verbally		Editorial team member (ET) asked another editorial team member (ET) his/her opinion about the layout of the articles; the team members had decided collectively about the layout. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: "Monitor, define, prioritize and complete tasks without direct oversight" (ibid).
			Editorial team member (ET) planned the layout of his/her articles by drawing diagrams with keywords. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions. Outcome: "Monitor, define, prioritize and complete tasks without direct oversight" (ibid).
Layout of photographs	Writing		Editorial team member (ET) planned the photo layout of his/her articles. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions. Outcome: "Monitor, define, prioritize and complete tasks without direct oversight" (ibid).
Questionnaire	Writing		Editorial team member (ET) planned the questions he/she would use when interviewing the teachers. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions. Outcome: "Monitor, define, prioritize and complete tasks without direct oversight" (ibid).
Questionnaire	Written (rewrites questions that will be used in the articles)		Editorial team member (ET) proof-read and edited the questions that would be used in the interview with the teachers. There is no social network, because the editorial team member proof-read and edited the questions without help. This particular event occurred on numerous occasions. Outcome: "Monitor, define, prioritize and complete tasks without direct oversight" (ibid).
Interpretation: When editorial team members worked independently in a group, one degree and three degree social networks were established. When editorial team members worked independently, no social networks were established.			

Table 4.14: Analysis relating to Life and Career skills (continued)

Analysis relating to guiding and leading others			
Relating to	Method	Person/s involved	Nature of involvement
Content of articles	Verbally		Editor (E) supported two editorial team members (ET) by providing them with advice and guidelines regarding the content of their articles. The degree of the social network is three. This particular social network occurred on numerous occasions. Outcome: “Use interpersonal problem-solving skills to guide others towards a goal” (ibid).
			Editor (E) supported an editorial team member (ET) by providing him/her with advice and guidelines regarding the content of his/her articles. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: “Use interpersonal problem-solving skills to guide others towards a goal” (ibid).
Information			Another editorial team member (ET) provided information to the two editorial members (ET). The degree of the social network is three. This particular social network occurred on numerous occasions. Outcome: “Use interpersonal problem-solving skills to guide others towards a goal” (ibid).
Layout of articles			Editor (E) supported two editorial team members (ET) by providing them with advice and guidelines regarding the layout of their articles. The degree of the social network is three. This particular social network occurred on numerous occasions. Outcome: “Use interpersonal problem-solving skills to guide others towards a goal” (ibid).
			Editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the layout of his/her articles. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: “Use interpersonal problem-solving skills to guide others towards a goal” (ibid).
Title		Verbally and visually	
Interpretation: When editorial team members guided and led others, one degree and three degree social networks were established.			

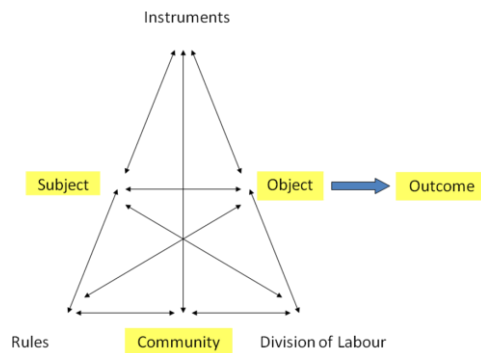
The interpretations regarding Life and Career skills is summarised in Table 4.15.

Table 4.15: Summary of interpretations relating to Life and Career skills

Skill	Networks
Adapting to change	When editorial team members adapted to change and worked dependently, one degree social networks were established.
Interacting effectively with others	When editorial team members interacted effectively with others, one degree and three degree social networks were established.
Working independently	When editorial team members worked dependently in a group, one degree and three degree social networks were established. When editorial team members worked independently, no social networks were established.
Guiding and leading others	When editorial team members guided and led others, one degree and three degree social networks were established.

4.2.4 Analysis of indirect observation data relating to the Activity theory

4.2.4.1 Analysis of indirect observation data relating to the subject-object-activity



The highlighted areas on the diagram on the left indicate the subject-object-activity, outcome and community. These components are discussed in paragraphs 4.2.4.1 (a) - 4.2.4.1 (b).

The analysis of the data relating to the subject-object-outcome-activity revealed two categories, namely **planning** and **evaluating** activities pertaining to articles.

4.2.4.1 (a) Analysis of data relating to the planning of articles

The analysis of data relating to the planning of articles includes the planning of:

- The textual content of articles
- The layout of the articles
- The photo layout of the articles

- The focus of cartoons
- The layout of cartoons
- The focus of questionnaires

Table 4.16 refers to the analysis relating to the planning of articles.

Table 4.16: Analysis relating to the planning of articles

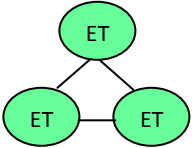
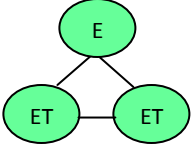
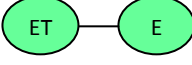

Analysis relating to the textual content of articles			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Conversation	Verbally		<p>Another editorial team member (ET) provided information to the two editorial members (ET). The editorial team members were comfortable with each other and were positive towards each other. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: Articles</p>
Conversation	Verbally		<p>Editor (E) supported two editorial team members (ET) by providing them with advice and guidelines regarding the content of their articles. The editor was kind and very willing to assist editorial team members. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: Articles</p>
			<p>Editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the content of his/her articles. The editor was kind and very willing to assist editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: Articles</p>
Pencil and paper	Writing		<p>Editorial team member (ET) planned his/her articles. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the articles. The event occurred numerous times.</p> <p>Outcome: Articles</p>
<p>Interpretation: During the planning of the textual content of the articles one degree and three degree social networks were established when team members worked dependently. When editorial team members worked independently on the textual content of the articles, no social networks were established.</p>			

Table 4.16: Analysis relating to the planning of articles (continued)



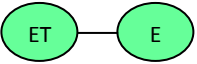


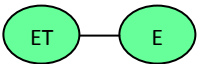
Analysis relating to the layout of articles			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Data book and pencil	Writing		Editorial team member (ET) planned the layout of his/her articles. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the layout. The event occurred numerous times. Outcome: Articles
Single page	Writing		Editorial team member (ET) planned the layout of his/her articles. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the layout. The event occurred numerous times. Outcome: Articles
Pencil, A4 page and notepad	Drawing pictures		Editorial team member (ET) explained the layout to the editor (E) and that the cartoons would be coloured at home. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. The event occurred numerous times. Outcome: Cartoons
Pencil and paper	Drawing pictures		Editorial team member (ET) planned the layout of his/her cartoons. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the layout of the cartoons. The event occurred numerous times. Outcome: Cartoons
Pencil and paper	Writing		Editorial team member (ET) planned the layout of his/her articles. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the layout. The event occurred numerous times. Outcome: Articles
Pencil, A4 page and notepad	Writing and drawing pictures		Editor (E) supported editorial team member (ET) by providing advice and guidelines regarding the layout of the articles. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Articles

Table 4.16: Analysis relating to the planning of articles (continued)


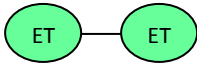
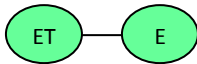

Analysis relating to the layout of articles			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Pencil and notepad	Writing		Editorial team member (ET) planned the layout of his/her articles. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the layout. The event occurred numerous times. Outcome: Articles
	Writing and verbally		Editorial team member (ET) asked another editorial team member (ET) his/her opinion about the layout of the articles; the team members had decided collectively about the layout. The editorial team members were comfortable with one another and were positive towards one another. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Articles
Pencil and notepad	Verbally		Editorial team member (ET) explained the layout of the articles to the editor (E). The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Articles
Interpretation: During the planning of the layout of the articles one degree social networks were established when editorial team members worked dependently. When editorial team members worked independently on the textual content of the articles, no social networks were established.			
Analysis relating to the photo layout of articles			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Writing pad	Writing		Editorial team member (ET) planned the photo layout of his/her articles. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the layout. The event occurred numerous times. Outcome: Photo layout of the articles
Interpretation: Editorial team members worked independently on the layout of the articles; no social networks were established.			

Table 4.16: Analysis relating to the planning of articles (continued)





Analysis relating to the focus cartoons			
With what/with which tool?	Method	Person/s involved	Nature of involvement
A4 blank paper and pencil	Tabulating		<p>Editorial team member (ET) decided about the focus of his/her cartoon by tabulating the key concepts that would be utilised to draw the cartoons. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the layout. The event occurred numerous times.</p> <p>Outcome: Cartoons</p>
<p>Interpretation: When editorial team members worked independently on the focus of the cartoons, no social networks were established.</p>			
Analysis relating to the layout of the cartoons			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Ruler, pencil and paper	Visually – drawing pictures and diagrams		<p>Editorial team member (ET) planned the layout of his/her cartoons by drawing pictures and diagrams with keywords. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the layout. The event occurred numerous times.</p> <p>Outcome: Layout of the cartoons</p>
<p>Interpretation: Editorial team members worked independently on the layout of the cartoons; no social networks were established.</p>			
Analysis relating to the focus of the questionnaires			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Pencil and paper	Writing		<p>Editorial team member (ET) planned the questions he/she would use when interviewing the <i>teachers</i>. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the questions. The event occurred numerous times.</p> <p>Outcome: Questions</p>
Data book	Writing – questions number one, two, three		<p>Editorial team member (ET) planned the questions he/she would use when interviewing the <i>teachers</i>. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the questions. The event occurred numerous times.</p> <p>Outcome: Questions</p>

Table 4.16: Analysis relating to the planning of articles (continued)

Analysis relating to the focus of the questionnaires
Interpretation: When editorial team members worked independently on the focus of the questionnaires, no social networks were established.

The interpretation regarding the planning of the articles is summarised in Table 4.17.

Table 4.17: Summary of interpretation relating to the planning of articles

Activity	Networks
The textual content of articles	During the planning of the textual content of the articles one degree and three degree social networks were established when editorial team members worked dependently. When editorial team members worked independently on the textual content of the articles, no social networks were established.
The layout of the articles	Editorial team members worked independently on the layout of the articles, no social networks were established.
The photo layout of the articles	Editorial team members worked independently on the layout of the articles, no social networks were established.
The focus of cartoons	When editorial team members worked independently on the focus of the cartoons, no social networks were established.
The layout of cartoons	Editorial team members worked independently on the layout of the cartoons; no social networks were established.
The focus of questionnaires	When editorial team members worked independently on the focus of the questionnaires, no social networks were established.

4.2.4.1 (b) Analysis of data relating to the evaluation of articles

The analysis of data relating to the evaluation of articles includes the evaluation of:

- The textual content of articles
- The length of the articles
- The layout of the articles
- The photo layout of the articles
- The cartoons
- The questionnaires
- The team work between editorial members
- The completed articles

Table 4.18 refers to the analysis relating to the evaluation of the articles.

Table 4.18: Analysis relating to the evaluation of the articles


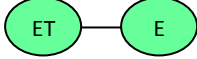

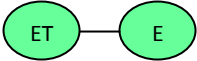
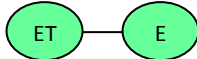
Analysis relating to the evaluation of the textual content of articles		
Method	Person/s involved	Nature of involvement
Proof-reading and editing of articles		Editorial team member (ET) proof-read and edited his/her articles. The editorial team member was focused and confident. There is no social network, because the editorial team member proof-read and edited the articles without assistance. This particular social network occurred on numerous occasions. Outcome: Proof-read and edited articles
Proof-reading and editing of articles		Editorial team member (ET) explained to the editor (E) that he/she had asked his/her <i>parents</i> to proof-read and edit the articles. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Proof-read and edited articles
Written (rewrite questions that will be utilised in the articles)		Editorial team member (ET) proof-read and edited the questions that would be utilised in the interview with the <i>teachers</i> . The editorial team member was focused and confident. There is no social network, because the editorial team member proof-read and edited the questions without assistance. This particular social network occurred on numerous occasions. Outcome: Proof-read and edited questions
Interpretation: During the evaluation of the textual content of the articles when the editorial members explained their planning and work method to the editor, one degree social networks were established. When editorial team members worked independently on the textual content of the articles, no social networks were established.		
Analysis of the evaluation of the length of the articles		
Method	Person/s involved	Nature of involvement
Verbally		The editorial team member (ET) asked the editor (E) if the information utilised in the articles was adequate. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Articles
Interpretation: During the evaluation of the length of the articles when editorial team members worked dependently, one degree social networks were established.		
Analysis relating to the evaluation of the layout of the articles		
Method	Person/s involved	Nature of involvement
Verbally		Editor (E) supported the editorial team member (ET) by providing him/her with advice and guidelines regarding the layout of his/her articles. The editor was kind and willing to assist editorial team member. The degree of this social network was one. This particular social network occurred on numerous occasions. Outcome: Layout of the articles

Table 4.18: Analysis relating to the evaluation of the articles (continued)

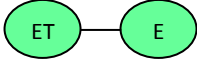
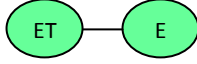
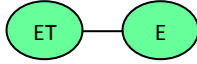
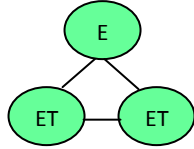
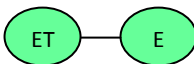
Analysis relating to the evaluation of the layout of the articles		
<p>Interpretation: During the evaluation of the layout of the articles when editorial team members worked dependently, one degree social networks were established.</p>		
Analysis relating to the evaluation the photo layout		
Method	Person/s involved	Nature of involvement
Verbally		<p>The editorial team member (ET) explained to the editor (E) that another editorial team member was responsible for taking the pictures. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The editorial team member explained the photographs that he/she utilised in the articles and the significance of the pictures. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: Photographs</p>
<p>Interpretation: During the evaluation of the photo layout of the articles when editorial team members worked dependently one degree social networks were established.</p>		
Analysis relating to the evaluation of the cartoons		
Method	Person/s involved	Nature of involvement
Verbally		<p>The editorial team member (ET) explained to the editor (E) the cartoons that he/she drew for the school newspaper and the significance of the cartoons. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: Cartoons</p>
<p>Interpretation: During the planning of the evaluation of the cartoons when editorial team members worked dependently, one degree social networks were established.</p>		
Analysis relating to the evaluation the questionnaires		
Method	Person/s involved	Nature of involvement
Verbally		<p>The editorial team member (ET) explained the content of the questionnaires to the editor (E). The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: Questionnaires</p>
<p>Interpretation: During the evaluation of the questionnaires when editorial team members worked dependently, one degree social networks were established.</p>		

Table 4.18: Analysis relating to the evaluation of the articles (continued)

Analysis relating to the evaluation regarding the teamwork between editorial members		
Method	Person/s involved	Nature of involvement
Verbally	 <pre> graph TD E((E)) --- ET1((ET)) E --- ET2((ET)) ET1 --- ET2 </pre>	<p>The editor (E) requested two of the editorial team members (ET), who worked together on articles, whether they enjoyed working together. The two editorial team members responded by saying that they enjoyed working as a team and were comfortable with one another. The degree of this social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: Team work</p>
<p>Interpretation: When the editor wanted to establish the editorial team members' thoughts on working together on articles, three degree social networks were established.</p>		
Analysis relating to the evaluation of the completed articles		
Method	Person/s involved	Nature of involvement
Verbally	 <pre> graph LR ET((ET)) --- E((E)) </pre>	<p>The editorial team member (ET) explained the completed articles to the editor (E). The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: Completed articles</p>
<p>Interpretation: During the evaluation of the completed articles when editorial team members explained their articles to the editor, one degree social networks were established.</p>		

The interpretation regarding the evaluation of the articles is summarised in Table 4.19.

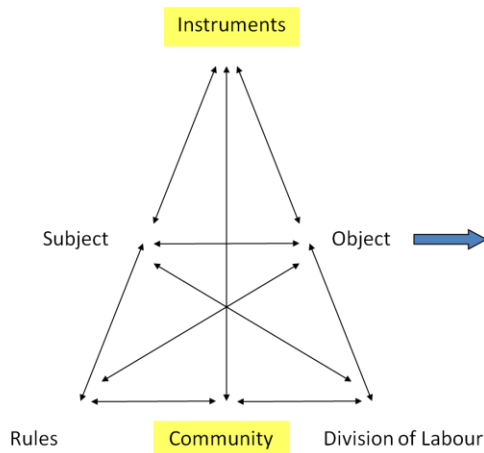
Table 4.19: Summary of interpretations relating to the evaluation of articles

Activity	Networks
The textual content of articles	During the evaluation of the textual content of the articles one degree social networks were established with <i>parents</i> . When editorial team members worked independently on the textual content of the articles, no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.
The length of the articles	During the evaluation of the length of the articles when editorial team members worked dependently, one degree social networks were established.
The layout of the articles	During the evaluation of the layout of the articles when editorial team members worked dependently, one degree social networks were established.
The photo layout of the articles	During the evaluation of the photo layout of the articles when editorial team members worked dependently, one degree social networks were established.

Table 4.19: Summary of interpretation relating to the evaluation of articles (continued)

Activity	Networks
The cartoons	During the planning of the evaluation of the cartoons when editorial team members worked dependently, one degree social networks were established.
The questionnaires	During the evaluation of the questionnaires when editorial team members worked dependently, one degree social networks were established.
The teamwork between editorial members	The editor determined editorial team members' thoughts on working together on articles; therefore three degree social networks were established.
The completed articles	During the evaluation of the completed articles when the editorial members explained their planning and work method to the editor, one degree social networks were established.

4.2.4.2 Analysis of data relating to the tools



The highlighted areas on the diagram on the left indicate the instruments, community and outcome. These components are discussed in paragraphs 4.2.4.2 (a) - 4.2.4.2 (b).

The analysis of the data relating to tools utilised to plan and create articles revealed two categories, namely **paper-based tools** and **digital tools**.

4.2.4.2 (a) Analysis of data relating to the paper-based tools

The following data relating to paper-based tools were captured:

- Planning of articles
- Layout of articles
- Planning of cartoons
- Constructing questionnaires
- Consulting a dictionary

Table 4.20 refers to the analysis relating to the paper-based tools.

Table 4.20: Analysis relating to the paper-based tools




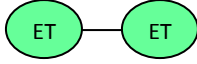
Analysis relating to the paper-based tools utilised during the planning of the articles			
With what/which tool?	Method	Person/s involved	Nature of involvement
Paper	Writing		Editorial team member (ET) planned his/her articles. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the articles. The event occurred numerous times. Outcome: Articles
Data book and pencil			
Pen and paper			
Note pad			
Note pad and pencil			
Note pad that was placed in a file			
Interpretation: Editorial team members worked independently on the planning the articles; no social networks were established.			
Analysis relating to the paper-based tools utilised during the layout of articles			
With what/which tool?	Method	Person/s involved	Nature of involvement
Note pad and pencils	Writing		Editorial team member (ET) utilised note pad and pencils to plan the layout of the articles by drawing diagrams and pictures with keywords in the diagrams. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the layout of the articles. The event occurred numerous times. Outcome: Articles
Interpretation: When editorial team members worked independently on the layout of the articles, no social networks were established.			
Analysis relating to the paper-based tools utilised for planning cartoons			
With what/which tool?	Method	Person/s involved	Nature of involvement
A4-Blank paper	Drawing pictures and diagrams		Editorial team member (ET) planned the cartoons by drawing diagrams and pictures with keywords in the diagrams. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the cartoon. The event occurred numerous times. Outcome: Cartoons

Table 4.20: Analysis relating to the paper-based tools (continued)

Analysis relating to the paper-based tools utilised for planning cartoons			
With what/which tool?	Method	Person/s involved	Nature of involvement
Ruler and pencil	Drawing frames around the cartoons	ET	Editorial team member (ET) planned the cartoons by drawing frames around the different cartoons. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the cartoons. The event occurred numerous times. Outcome: Cartoons
Colouring pencils	Colouring-in of cartoons	ET	Editorial team member (ET) coloured the cartoons. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the colouring of the cartoons. The event occurred numerous times. Outcome: Coloured cartoons
Interpretation: Editorial team members worked independently on the planning of the cartoons; no social networks were established.			
Analysis relating to the paper-based tools utilised during the constructing of questionnaires			
With what/which tool?	Method	Person/s involved	Nature of involvement
Data book	Writing	ET	The editorial team member (ET) used a data book to plan the questions of the interviews with teachers . The editorial team member was focused and confident. The editorial team member wrote the answers to the questions in the data book. There is no social network, because the editorial team member worked independently on constructing-the questionnaires. The event occurred numerous times. Outcome: Questionnaires
Interpretation: When editorial team members worked independently on constructing questionnaires, no social networks were established.			

Table 4.20: Analysis relating to the paper-based tools (continued)

Analysis relating the consulting a dictionary			
With what/which tool?	Method	Person/s involved	Method
			other. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Appropriate words
Interpretation: Editorial team members worked together when they consulted a dictionary and therefore one degree social networks were established.			

The interpretation regarding the paper-based tools articles is summarised in Table 4.21.

Table 4.21: Summary of interpretations relating to the paper-based tools

Activity	Networks
Planning of articles	Editorial team members worked independently on planning the articles; no social networks were established.
Layout of articles	When editorial team members worked independently on the layout of the articles, no social networks were established.
Planning of cartoons	Editorial team members worked independently on the planning of the cartoons; no social networks were established.
Constructing questionnaires	When editorial team members worked independently on constructing questionnaires, no social networks were established.
Consulting a dictionary	Editorial team members worked together when they consulted a dictionary and therefore one degree social networks were established.

4.2.4.2 (b) Analysis of data relating to the digital tools

The following data relating to digital tools were captured:

- The typing and emailing of articles
- Creating shapes
- Taking photographs for the articles
- Emailing and scanning the cartoons

Table 4.22 refers to the analysis relating to the tools.

Table 4.22: Analysis relating to the digital tools

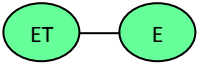
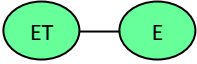
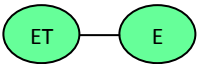
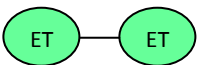
Analysis relating to the digital tools utilised to type and email articles		
With what/which tool?	Who utilised the tool?	Nature of involvement
Digital tool		Editorial team member (ET) explained to the editor (E) that <i>he/she</i> typed his/her articles. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. The social network occurred numerous times. Outcome: Typed articles
		Editorial team member (ET) explained to the editor (E) that <i>he/she</i> emailed his/her articles to the editor. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. The social network occurred numerous times. Outcome: Emailed articles
Interpretation: Editorial team members worked without assistance when typing and emailing of the articles; no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.		
Analysis relating the digital tools utilised to create shapes		
With what/which tool?	Who utilised the tool?	Nature of involvement
Digital tool		Editorial team member (ET) explained to the editor (E) that <i>he/she</i> utilised a computer to create different shapes to copy and paste over the faces of learners. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently. The activity occurred numerous times. Outcome: Shapes
Interpretation: Editorial team members worked independently when creating shapes and therefore no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.		
Analysis relating to the digital tools utilised to take photographs		
With what/which tool?	Who utilised the tool?	Nature of involvement
Digital tool		Editorial team member (ET) requested <i>another editorial team member</i> (ET) to take photographs. The editorial team members were comfortable with one another and were positive towards one another. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Photographs

Table 4.22: Analysis relating to the digital tools (continued)

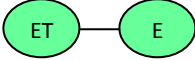
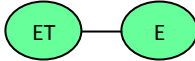
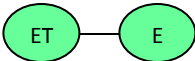
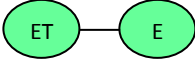
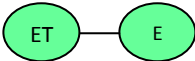
Analysis relating to the digital tools utilised to take photographs		
With what/which tool?	Who utilised the tool?	Nature of involvement
Digital tool		<p>Editorial team member (ET) explained to the editor that he/she had requested a teacher to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: Photographs</p>
		<p>Editorial team member (ET) explained to the editor that he/she had asked a parent to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: Photographs</p>
		<p>Editorial team member (ET) explained to the editor that he/she took the photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of the social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: Photographs</p>
		<p>Editorial team member (ET) requested editor (E) to take photographs. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: Photographs</p>
		<p>Editorial team member (ET) explained to the editor (E) that he/she had asked another adult to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: Photographs</p>

Table 4.22: Analysis relating to the digital tools (continued)

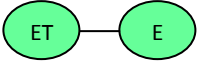
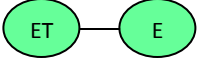
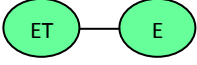
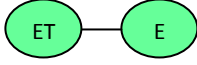
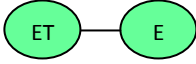
Analysis relating to the digital tools utilised to take photographs		
With what/which tool?	Who utilised the tool?	Nature of involvement
Digital tool		Editorial team member (ET) explained to the editor (E) that he/she had asked other learners to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Photographs
		The editorial team member (ET) explained to the editor (E) that the teacher emailed the photographs to editorial team member. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Emailed photographs
Cell phone		Editorial team member (ET) explained to the editor (E) that he/she took the photographs by using a cellular phone. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. The social network occurred numerous times. Outcome: Photographs
Interpretation: During the planning of the taking of photographs one degree social networks were established when team members asked parents, teachers, another adult, team members and the editor to take the photographs. When editorial team members worked independently when taking photographs, no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.		
Analysis relating to the digital tools utilised for emailing and scanning cartoons		
With what/which tool?	Who utilised the tool?	Nature of involvement
Computer and scanner		Editorial team member (ET) explained to the editor (E) that he/she had utilised the computer and scanner to scan cartoons. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. The social network occurred numerous times. Outcome: Scanned cartoons

Table 4.22: Analysis relating to the digital tools (continued)

Analysis relating to the digital tools utilised for emailing and scanning cartoons		
With what/which tool?	Who utilised the tool?	Nature of involvement
Computer		<p>Editorial team member (ET) explained to the editor (ET) that <i>he/she</i> had utilised the computer and the Internet to email the cartoons to the editor. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. The social network occurred numerous times.</p> <p>Outcome: Emailed cartoons</p>
<p>Interpretation: During the emailing and scanning of cartoons, editorial team members worked independently; no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.</p>		

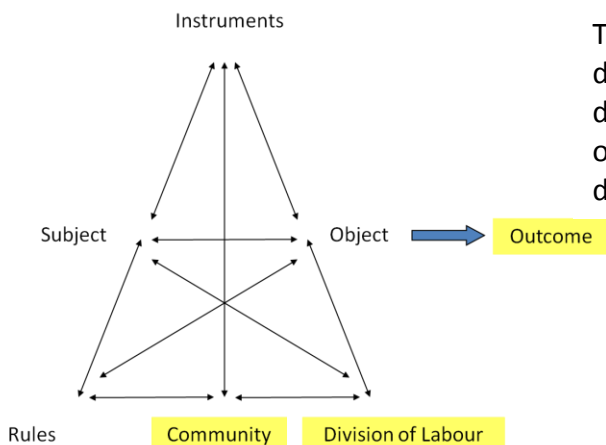
The researcher decided to use the term *digital tool* where the editorial team members did not specify which tool they had utilised to achieve the required outcome.

The interpretation regarding the digital tools is summarised in Table 4.23.

Table 4.23: Summary of interpretation relating to the digital tools

Activity	Networks
The typing and emailing of articles	Editorial team members worked without assistance when typing and emailing the articles; no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.
Creating shapes	Editorial team members worked independently when creating shapes and therefore no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.
Taking photographs for the articles	During the planning of the taking of photographs one degree social networks were established when team members asked <i>parents, teachers, another adult, team members</i> and the <i>editor</i> to take the photographs. When editorial team members worked independently when taking photographs, no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.
Emailing and scanning the cartoons	During the emailing and scanning of cartoons, editorial team members worked independently; no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.

4.2.4.3 Analysis of data relating to the division of labour



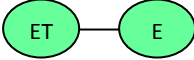
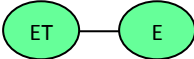
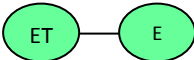
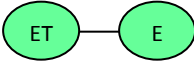
The highlighted areas on the diagram on the left indicate the division of labour, community and outcome. These components are discussed in Table 4.26.

Editorial team members divided some of their responsibilities among peers, parents, teachers and themselves. Table 4.24 refers to the data captured relating to the division of labour regarding the taking of photographs, proof-reading and editing of articles.

Table 4.24: Analysis relating to the division of labour

Analysis relating to the division of labour		
Relating to	Person/s involved	Nature of involvement
Photographs		Editorial team member (ET) explained to the editor (E) that he/she had requested <i>parents</i> to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Photographs
		Editorial team member (ET) requested <i>another editorial team member</i> (ET) to take photographs. The editorial team members were comfortable with one another and were positive towards one another. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Photographs
		Editorial team member (ET) explained to editor (E) that he/she had asked <i>other learners</i> to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Photographs

Table 4.24: Analysis relating the division of labour (continued)

Analysis relating to the division of labour		
Relating to	Person/s involved	Nature of involvement
Photographs		Editorial team member (ET) requested <i>editor</i> (E) to take photographs. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Photographs
		Editorial team member (ET) explained to editor (E) that he/she had asked a <i>teacher</i> to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network was one. This particular social network occurred on numerous occasions. Outcome: Photographs
		Editorial team member (ET) explained to the editor (E) that he/she had asked <i>another adult</i> to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Photographs
Proof-reading and editing of articles		Editorial team member (ET) explained to the editor (E) that he had asked his/her <i>parents</i> to proof-read and edit the articles. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: Proof-read and edited articles
Interpretation: During the division of labour activity when editorial team members worked dependently, one degree social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.		

The interpretation regarding the division of labour is summarised in Table 4.25.

Table 4.25: Summary of interpretations relating to the division of labour

Activity	Networks
Division of labour	During the division of labour activity one degree social networks were established when editorial team members worked dependently. When the editorial members explained their planning and work method to the editor, one degree social networks were established.

4.2.5 Analysis of indirect observation data relating to 21st Century Skills

The analysis of the data relating to the 21st Century Skills was undertaken with the three core 21st Century skills as the structure. These 21st century skills are:

- Learning and Innovations skills
- Information, Media and Technology skills
- Life and Career skills

4.2.5.1 Analysis of data relating to Learning and Innovation skills

The following data relating to the Learning and Innovation skills were captured:

- Solving problems
- Collaborating with others
- Working creatively with others
- Communicating clearly
- Thinking creatively

Table 4.26 refers to the analysis relating to Learning and Innovation skills.

Table 4.26: Analysis relating to Learning and Innovation skills

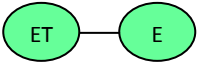
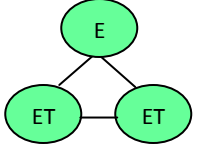
Analysis relating to the solving of problems			
Relating to	Method	Person/s involved	Nature of involvement
Completed articles	Verbally		<p>The editorial team member (ET) explained the completed articles to the editor (E). The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Identify and ask significance questions that clarify various points of view and lead to better solutions” (Partnership for 21st Century Skills, 2004).</p>
Consulting a dictionary	Verbally		<p>Editor (E) supported two editorial team members (ET) by providing them with a bilingual dictionary. The editor was kind and willing to assist editorial team members. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Identify and ask significance questions that clarify various points of view and lead to better solutions” (ibid).</p>

Table 4.26: Analysis relating to Learning and Innovation skills (continued)

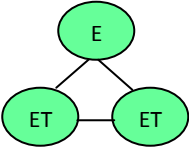
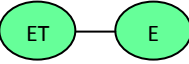
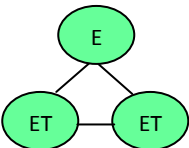
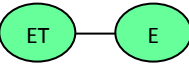
Analysis relating to the solving of problems			
Relating to	Method	Person/s involved	Nature of involvement
Content of articles	Verbally		<p>Editor (E) supported two editorial team members (ET) by providing them with advice and guidelines regarding the content of their articles. The editor was kind and willing to assist editorial team members. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Identify and ask significant questions that clarify various points of view and lead to better solutions” (ibid).</p>
			<p>Editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the content of his/her articles. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Identify and ask significant questions that clarify various points of view and lead to better solutions” (ibid).</p>
Layout of articles			<p>Editor (E) supported two editorial team members (ET) by providing them with advice and guidelines regarding the layout of their articles. The editor was kind and willing to assist editorial team members. The degree of the social networks three. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Identify and ask significant questions that clarify various points of view and lead to better solutions” (ibid).</p>
			<p>Editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the layout of his/her articles. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Identify and ask significant questions that clarify various points of view and lead to better solutions” (ibid).</p>
<p>Interpretation: During the solving of problems, one degree and three degree social networks were established.</p>			

Table 4.26: Analysis relating to Learning and Innovation skills (continued)

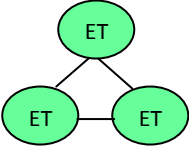
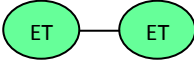
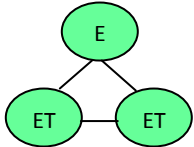
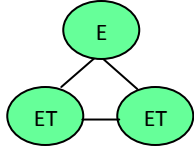
Analysis relating to collaborating with others			
Relating to	Method	Person/s involved	Nature of involvement
Articles	Verbally		<p>Another editorial team member (ET) assisted two editorial team members (ET) to decide what the content of the articles should be. The editorial team members were comfortable with one another and were positive towards one another. The degree of this social network is two. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Assuming shared responsibility for collaborative work, and valuing the individual contributions made by each team member” (ibid).</p>
	Verbally and in writing		<p>Editorial team members (ET) planned the layout of their articles. The editorial team members were comfortable with one another and were positive towards one another. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Assuming shared responsibility for collaborative work, and valuing the individual contributions made by each team member” (ibid).</p>
Title	Verbally and visually		<p>Editor (E) supported two editorial team members (ET) by providing them with a bilingual dictionary. The editor was kind and willing to assist editorial team members. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Assuming shared responsibility for collaborative work, and valuing the individual contributions made by each team member” (ibid).</p>
Layout of articles	Verbally		<p>Editorial team members (ET) explained the layout of the articles to the editor (E). The editorial team members were comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of the social network is three. This particular social network occurred on numerous occasions (Partnership for 21st Century Skills, 2004).</p> <p>Outcome: “Assuming shared responsibility for collaborative work, and valuing the individual contributions made by each team member” (ibid).</p>
<p>Interpretation: When editorial team members collaborated with others, one degree and three degree social networks were established.</p>			

Table 4.26: Analysis relating to Learning and Innovation skills (continued)

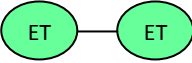
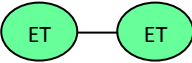
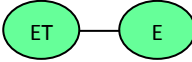
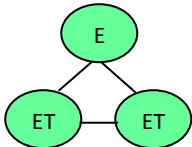
Analysis relating working creatively with others			
Relating to:	Method	Person/s involved	Nature of involvement
Layout of articles	Verbally and in writing		<p>Editorial team members (ET) planned the layout of their articles. The editorial team members were comfortable with one another and were positive towards one another. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Develop, implement and communicate new ideas to others effectively” (ibid). • “Being open and responsive to new and diverse perspectives, incorporating group input and feedback into work” (ibid).
Layout of photographs	Verbally and writing		<p>Editorial team members (ET) planned the layout of their photographs. The editorial team members were comfortable with one another and were positive towards one another. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Develop, implement and communicate new ideas to others effectively” (ibid). • “Being open and responsive to new and diverse perspectives, incorporate group input and feedback into work” (ibid).
Questionnaire	Verbally		<p>The editorial team member (ET) explained the questionnaires to the editor (E). The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Develop, implement and communicate new ideas to others effectively” (ibid). • “Being open and responsive to new and diverse perspectives, incorporating group input and feedback into work” (ibid).
Title	Verbally and visually		<p>Editor (E) supported two editorial team members (ET) by providing them with a bilingual dictionary. The editor was kind willing to assist editorial team members. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Develop, implement and communicate new ideas to others effectively” (ibid). • “Being open and responsive to new and diverse perspectives, incorporating group input and feedback into work” (ibid).

Table 4.26: Analysis relating to Learning and Innovation skills (continued)

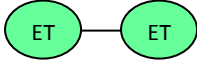
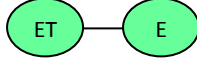
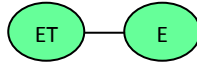
Analysis relating working creatively with others			
Relating to	Method	Person/s involved	Nature of involvement
Title	Verbally and in writing		<p>Two editorial team members (ET) decide to use the logo of the school to visually enhance their title's layout. They decided to go to the school's webpage and copy and paste the logo. The editorial team members were comfortable with one another and were positive towards one another. The degree of the social network is three. This particular social network occurred only once.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • "Develop, implement and communicate new ideas to others effectively" (ibid). • "Being open and responsive to new and diverse perspectives, incorporating group input and feedback into work" (ibid).
<p>Interpretation: When editorial team members worked creatively with others, one degree and three degree social networks were established.</p>			
Analysis relating to clear communication			
Relating to:	Method	Person/s involved	Nature of involvement
Cartoons	Verbally		<p>The editorial team member (ET) explained the cartoons to the editor (E). The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • "To use communication for a range of purpose e.g. to inform, instruct, motivate and persuade" (ibid). • "Articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts" (ibid).
Completed articles			<p>The editorial team member (ET) explained the completed articles to the editor (E). The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • "To use communication for a range of purpose e.g. to inform, instruct, motivate and persuade" (ibid). • "Articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts" (ibid).

Table 4.26: Analysis relating to Learning and Innovation skills (continued)

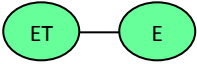



Analysis relating to clear communication			
Relating to:	Method	Person/s involved	Nature of involvement
Questionnaire			<p>The editorial team member (ET) explained the questionnaires to the editor (E). The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> To use communication for a range of purpose e.g. to inform, instruct, motivate and persuade. (ibid). “Articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts” (ibid).
Interpretation: When editorial members communicated clearly with others, one degree social networks were established.			
Analysis relating to thinking creatively			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Articles	Proof-reading and editing of articles		<p>Editorial team member (ET) proof-read and edited his/her articles. The editorial team member was focused and confident. There is no social network, because the editorial team member proof-read and edited the articles without assistance. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).</p>
	Writing		<p>Editorial team member (ET) planned his/her articles by chronologically organising the information. The editorial team member was focused and confident. There is no social network. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).</p>
	Writing, drawing pictures		<p>Editorial team member (ET) planned his/her articles by drawing pictures with keywords under the pictures. The editorial team member was focused and confident. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).</p>

Table 4.26: Analysis relating to Learning and Innovation skills (continued)

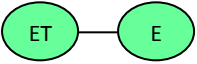

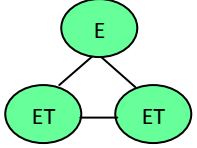

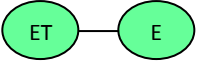
Analysis relating to thinking creatively			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Cartoons	Verbally		<p>The editorial team member (ET) explained the cartoons to the editor (E). The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).</p>
	Writing, tabulating diagrams		<p>Editorial team member (ET) tabulated the information that would be utilised to draw the cartoons. Diagrams/ dialog boxes were drawn with key words incorporated. The editorial team member was focused and confident. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).</p>
Consulting a dictionary	Verbally		<p>Editor (E) supported two editorial team members (ET) by providing them with a bilingual dictionary. The editor was kind and willing to assist editorial team members. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).</p>
Information	Writing		<p>Editorial team member (ET) organised the information of his/her articles under different headings. The editorial team member was focused and confident. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).</p>
Layout of articles	Verbally		<p>Editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the layout of his/her articles. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts” (ibid).</p>

Table 4.26: Analysis relating to Learning and Innovation skills (continued)


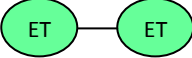

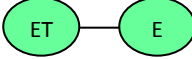

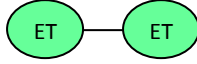
Analysis relating to thinking creatively			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Layout of articles	Verbally and in writing		Editorial team member (ET) planned the layout of his/her photographs. The editorial team member was focused and confident. This particular social network occurred on numerous occasions. Outcome: "Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts" (ibid).
Layout of photographs	Verbally and in writing		Editorial team members (ET) planned the layout of their photographs. The editorial team members were comfortable with one another and were positive towards one another. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: "Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts" (ibid).
			Editorial team member (ET) planned the layout of his/her photographs. The editorial team member was focused and confident. This particular social network occurred on numerous occasions. Outcome: "Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts" (ibid).
Questionnaires	Verbally		The editorial team member (ET) explained the questionnaires to the editor (E). The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: "Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts" (ibid).
	Written (rewrites questions that will be utilised in the articles)		Editorial team member (ET) proof-read and edit the questions that will be utilised in the interview with the teachers . The editorial team member is focus and confident. There is no social network, because the editorial team member proof-read and edited the questions without assistance. This particular social network occurred on numerous occasions. Outcome: "Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts" (ibid).

Table 4.26: Analysis relating to Learning and Innovation skills (continued)

Analysis relating to thinking creatively			
With what/with which tool?	Method	Person/s involved	Nature of involvement
Title	Verbally and writing		<p>Two editorial team members (ET) decided to use the logo of the school to visually enhance their title's layout. The editorial team members were comfortable with one another and were positive towards one another. They decided to go to the school's webpage and would copy and paste the logo. The degree of the social network is three. This particular social network occurred only once.</p> <p>Outcome: "Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts" (ibid).</p>
<p>Interpretation: When editorial team members thought creatively, one degree and three degree social networks were established. When editorial team members worked independently on their articles, no social networks were established.</p>			

The interpretation regarding Learning and Innovation skills is summarised in Table 4.27.

Table 4.27: Summary of interpretations relating to Learning and Innovation skills

Skill	Networks
Solving problems	During the solving of problems, one degree and three degree social networks were established.
Collaborating with others	When editorial team members collaborated with others, one degree and three degree social networks were established.
Working creatively with others	When editorial team members worked creatively with others, one degree and three degree social networks were established.
Communicating clearly	When editorial members communicated clearly with others, one degree social networks were established.
Thinking creatively	When editorial team members thought creatively, one degree and three degree social networks were established. When editorial team members worked independently on their articles, no social networks were established.

4.2.5.2 Analysis of data relating to Information, Media and Technology skills

The following data relating to Information, Media and Technology skills were captured:

- Accessing and evaluating information
- Creating media products
- Applying technology effectively

Table 4.28 refers to the analysis relating to Information, Media and Technology skills.

Table 4.28: Analysis relating to Information, Media and Technology skills


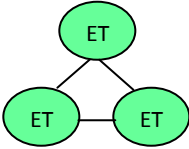
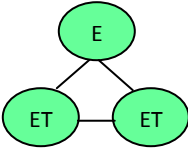
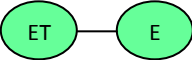
Analysis relating to accessing and evaluation of information			
Relating to:	Method	Person/s involved	Nature of involvement
Articles	Proof-reading and editing of articles		<p>Editorial team member (ET) proof-read and edited his/her articles. The editorial team member was focused and confident. There is no social network, because the editorial team member proof-read and edited the articles without assistance. This particular social network occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Access information efficiently (time) and effectively (sources)” (Partnership for 21st Century Skills, 2004). “Evaluate information critically and competently” (ibid).
	Verbally		<p>Another editorial team member (ET) assisted two editorial team members (ET) to decide what the content of the articles should be. The editorial team members were comfortable with one another and were positive towards one another. The degree of this social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Access information efficiently (time) and effectively (sources)” (ibid). “Evaluate information critically and competently” (ibid).
Content of articles	Verbally		<p>Editor (E) supported two editorial team members (ET) by providing them with advice and guidelines regarding the content of their articles. The editor was kind and willing to assist editorial team members. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> “Access information efficiently (time) and effectively (sources)” (ibid). “Evaluate information critically and competently” (ibid).
			<p>Editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the content of his/her articles. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> “Access information efficiently (time) and effectively (sources)” (ibid). “Evaluate information critically and competently” (ibid).

Table 4.28: Analysis relating to Information, Media and Technology skills (continued)

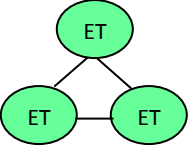
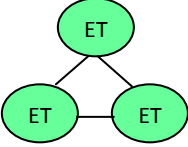
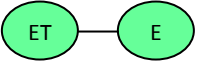
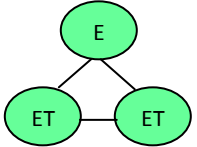
Analysis relating to accessing and evaluation of information			
Relating to:	Method	Person/s involved	Nature of involvement
Information	Verbally		<p>Editorial team members (ET) asked other editorial team member (ET) about his/her experience or view on the workshop the entire editorial team attended. The editorial team members were comfortable with one another and were positive towards one another. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Access information efficiently (time) and effectively (sources)” (ibid). • “Evaluate information critically and competently” (ibid).
Information	Verbally		<p>Another editorial team member (ET) assisted two editorial team members (ET) by providing them with information regarding the topic of their articles. The editorial team members were comfortable with one another and were positive towards one another. The degree of this social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Access information efficiently (time) and effectively (sources)” (ibid). • “Evaluate information critically and competently” (ibid).
Layout of articles	Verbally		<p>Editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the layout of his/her articles. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Access information efficiently (time) and effectively (sources)” (ibid). • “Evaluate information critically and competently” (ibid).
			<p>Editor (E) supported two editorial team members (ET) by providing them with advice and guidelines regarding the layout of their articles. The editor was kind and willing to assist editorial team members. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Access information efficiently (time) and effectively (sources)” (ibid). • “Evaluate information critically and competently” (ibid).

Table 4.28: Analysis relating to Information, Media and Technology skills (continued)

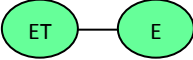
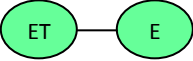

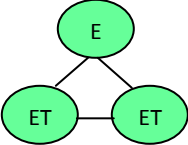
Analysis relating to accessing and evaluation of information			
Relating to:	Method	Person/s involved	Nature of involvement
Layout of articles	Verbally		<p>Editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the layout of his/her articles. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome:</p> <ul style="list-style-type: none"> • “Access information efficiently (time) and effectively (sources)” (ibid). • Evaluate information critically and competently” (ibid).
Photographs	Verbally		<p>Editorial team member (ET) explained to editor (E) who took the photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Access information efficiently (time) and effectively (sources)” (ibid). • “Evaluate information critically and competently” (ibid).
Questionnaire	Written (rewrote questions that would be utilised in the articles)		<p>Editorial team member (ET) proof-read and edited the questions that would be utilised in the interview with the <i>teachers</i>. The editorial team member was focused and confident. There is no social network, because the editorial team member proof-read and edited the questions without assistance. This particular event occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Access information efficiently (time) and effectively (sources)” (ibid). • “Evaluate information critically and competently” (ibid).
Title	Verbally and visually		<p>Editor (E) supported two editorial team members (ET) by providing them with a bilingual dictionary. The editor was kind and willing to assist editorial team members. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Access information efficiently (time) and effectively (sources)” (ibid). • “Evaluate information critically and competently” (ibid).

Table 4.28: Analysis relating to Information, Media and Technology skills (continued)

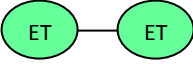
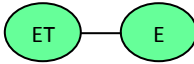
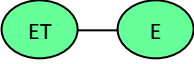
Analysis relating to accessing and evaluation of information			
Relating to:	Method	Person/s involved	Nature of involvement
Title	Verbally and in writing		<p>Two editorial team members (ET) decided to use the logo of the school to visually enhance their title's layout. They decided to go to the school's webpage to copy and paste the logo. The editorial team members were comfortable with one another and were positive towards one another. The degree of the social network is two. This particular social network occurred only once.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • "Access information efficiently (time) and effectively (sources)" (ibid). • "Evaluate information critically and competently" (ibid).
<p>Interpretation: When editorial team members accessed and evaluated information, one degree and three degree social networks were established. When editorial team members worked independently on their articles, no social networks were established.</p>			
Analysis relating to creating media products			
Relating to	With what/which tool?	Who utilised the tool?	Nature of involvement
Articles	Computer		<p>Editorial team member (ET) explained to the editor (E) that he/she had utilised a computer to create different shapes to copy and paste over the faces of learners. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: "Understand and utilize the most appropriate media creation tools, characteristics and conventions" (ibid).</p>
Photographs	Digital tool		<p>Editorial team member (ET) explained to the editor (E) that he/she had asked another editorial team member (ET) to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: "Understand and utilize the most appropriate media creation tools, characteristics and conventions" (ibid).</p>

Table 4.28: Analysis relating to Information, Media and Technology skills (continued)

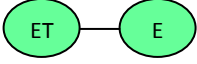
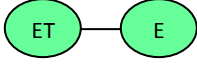
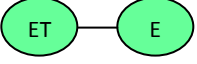
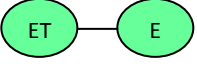
Analysis relating to creating media products			
Relating to	With what/which tool?	Who utilised the tool?	Nature of involvement
Photographs	Digital tool		<p>Editorial team member (ET) explained to the editor that he/she had asked a teacher to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Understand and utilize the most appropriate media creation tools, characteristics and conventions” (ibid).</p>
			<p>Editorial team member (ET) explained to the editor (E) that he/she had asked a parent to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Understand and utilize the most appropriate media creation tools, characteristics and conventions” (ibid).</p>
			<p>Editorial team member (ET) explained to the editor that he/she had taken the photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Understand and utilize the most appropriate media creation tools, characteristics and conventions” (ibid).</p>
			<p>Editorial team member (ET) requested the editor (E) to take photographs. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Understand and utilize the most appropriate media creation tools, characteristics and conventions” (ibid).</p>

Table 4.28: Analysis relating to Information, Media and Technology skills (continued)

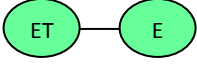
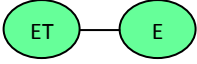
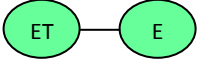
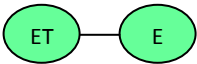
Analysis relating to creating media products			
Relating to	With what/which tool?	Who utilised the tool?	Nature of involvement
Photographs	Digital tool		Editorial team member (ET) explained to the editor (E) that he/she had asked another adult to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: “Understand and utilize the most appropriate media creation tools, characteristics and conventions” (ibid).
			Editorial team member (ET) explained to the editor that he/she had asked other learners to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: “Understand and utilize the most appropriate media creation tools, characteristics and conventions” (ibid).
	Cell phone		Editorial team member (ET) explained to the editor (E) that he/she had taken photographs by using a cellular phone. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: “Understand and utilize the most appropriate media creation tools, characteristics and conventions” (ibid).
Interpretation: When editorial team members created media products by working dependently, one degree social networks were established. When editorial team members independently created media products, no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.			
Analysis relating to applying technology effectively			
Relating to:	With what/which tool?	Person/s involved	Nature of involvement
Articles	Digital tool		Editorial team member (ET) explained to the editor (E) that he/she had typed his/her articles. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.

Table 4.28: Analysis relating to Information, Media and Technology skills (continued)

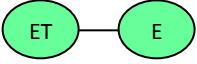
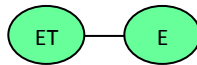
Analysis relating to applying technology effectively			
Relating to:	With what/which tool?	Person/s involved	Nature of involvement
			<p>Outcomes:</p> <ul style="list-style-type: none"> “Use technology as a tool to research, organize, evaluate and communicate information” (ibid). “Use digital technologies communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy” (ibid).
Articles	Digital tool		<p>Editorial team member (ET) explained to the editor that <i>he/she</i> had emailed his/her articles. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> “Use technology as a tool to research, organize, evaluate and communicate information” (ibid). “Use digital technologies communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy” (ibid).
			<p>Editorial team member (ET) explained to the editor (E) that <i>he/she</i> had utilised a computer to create different shapes to copy and paste over the faces of learners. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> “Use technology as a tool to research, organize, evaluate and communicate information” (ibid). “Use digital technologies communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy” (ibid).

Table 4.28: Analysis relating to Information, Media and Technology skills (continued)

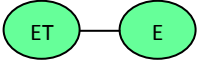
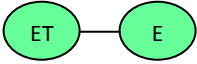
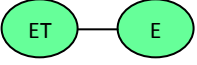
Analysis relating to applying technology effectively			
Relating to:	With what/which tool?	Person/s involved	Nature of involvement
Cartoons	Computer		<p>Editorial team member (ET) explained to the editor (E) that <i>he/she</i> had utilised the computer and the Internet to email the cartoons to the editor. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Use technology as a tool to research, organize, evaluate and communicate information” (ibid). • “Use digital technologies communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy” (ibid).
Cartoons	Computer and scanner		<p>Editorial team member (ET) explained to the editor (E) that <i>he/she</i> had utilised the computer and scanner to scan cartoons. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Use technology as a tool to research, organize, evaluate and communicate information” (ibid). • “Use digital technologies communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy” (ibid).
Photographs	Cell phone		<p>Editorial team member (ET) explained to the editor (E) that <i>he/she</i> had taken photographs by using a cellular phone. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Use technology as a tool to research, organize, evaluate and communicate information” (ibid). • “Use digital technologies communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy” (ibid).

Table 4.28: Analysis relating to Information, Media and Technology skills (continued)

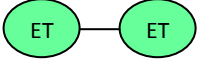
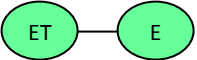
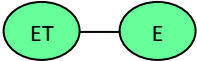
Analysis relating to applying technology effectively			
Relating to:	With what/which tool?	Person/s involved	Nature of involvement
Photographs	Digital tool		<p>Editorial team member (ET) explained to the editor (E) that he/she had asked another editorial team member to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Use technology as a tool to research, organize, evaluate and communicate information” (ibid). • “Use digital technologies communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy” (ibid).
			<p>Editorial team member (ET) explained to the editor (E) that he/she had asked a teacher to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Use technology as a tool to research, organize, evaluate and communicate information” (ibid). • “Use digital technologies communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy” (ibid).
			<p>Editorial team member (ET) explained to the editor (E) that he/she had asked a parent to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Use technology as a tool to research, organize, evaluate and communicate information” (ibid). • Use digital technologies communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy” (ibid).

Table 4.28: Analysis relating to Information, Media and Technology skills (continued)

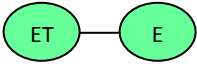
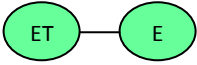
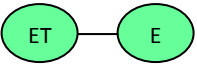
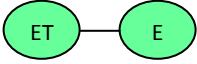
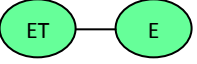
Analysis relating to applying technology effectively			
Relating to:	With what/which tool?	Person/s involved	Nature of involvement
Photographs	Digital tool		<p>Editorial team member (ET) explained to the editor (E) that <i>he/she</i> had taken photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Use technology as a tool to research, organize, evaluate and communicate information” (ibid). • “Use digital technologies communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy” (ibid).
			<p>Editorial team member (ET) requested the <i>editor</i> (E) to take photographs. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Use technology as a tool to research, organize, evaluate and communicate information” (ibid). • “Use digital technologies communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy” (ibid).
Photographs	Digital tool		<p>Editorial team member (ET) explained to the editor (E) that he/she had asked <i>another adult</i> to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Use technology as a tool to research, organize, evaluate and communicate information” (ibid). • “Use digital technologies communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy” (ibid).

Table 4.28: Analysis relating to Information, Media and Technology skills (continued)

Analysis relating to applying technology effectively			
Relating to:	With what/which tool?	Person/s involved	Nature of involvement
Photographs	Digital tool		<p>Editorial team member (ET) explained to the editor (E) that he/she had asked other learners to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Use technology as a tool to research, organize, evaluate and communicate information” (ibid). • Use digital technologies communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy.
			<p>The editorial team member (ET) explained to the editor (E) that the teacher had emailed photographs to editorial team member. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • “Use technology as a tool to research, organize, evaluate and communicate information” (ibid). • “Use digital technologies communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy” (ibid).
<p>Interpretation: When editorial team members applied technology effectively, one degree social networks were established. When editorial team members independently applied technology effectively, no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.</p>			

The interpretations regarding Information, Media and Technology skills is summarised in Table 4.29.

Table 4.29: Summary of interpretation relating to Information, Media and Technology skills

Skill	Networks
Accessing and evaluating information	When editorial team members accessed and evaluated information, one degree and three degree social networks were established. When editorial team members worked independently on their articles, no social networks were established.
Creating media products	When editorial team members created media products by working dependently, one degree social networks were established. When editorial team members independently created media products, no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.
Applying technology effectively	When editorial team members applied technology effectively, one degree social networks were established. When editorial team members independently applied technology effectively, no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.

4.2.5.3 Analysis of data relating to Life and Career skills

The following data relating to Life and Career skills were captured:

- Adapting to change
- Interacting effectively with others
- Working independently
- Guiding and leading others

Table 4.30 refers to the analysis relating to Life and Career skills.

Table 4.30: Analysis relating to Life and Career skills

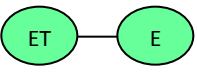
Analysis relating to adapting to change			
Relating to:	Method	Person/s involved	Nature of involvement
Photographs	Verbally		<p>Editorial team member (ET) explained to the editor (E) that he/she had asked other <i>parents</i> to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Adapt to a varied of roles, job responsibilities, schedules and contexts” (Partnership for 21st Century Skills, 2004).</p>

Table 4.30: Analysis relating to Life and Career skills (continued)

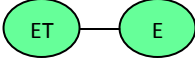
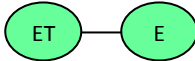
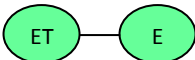
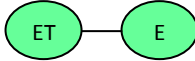
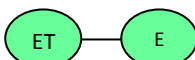
Analysis relating to adapting to change			
Relating to:	Method	Person/s involved	Nature of involvement
Photographs	Verbally		Editorial team member (ET) explained to the editor that he/she had asked another editorial team member to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: "Adapt to a variety of roles, job responsibilities, schedules and contexts" (ibid).
			Editorial team member (ET) explained to the editor (E) that he/she had asked other learners to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: "Adapt to a variety of roles, job responsibilities, schedules and contexts" (ibid).
			Editorial team member (ET) requested the editor (E) to take photographs. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: "Adapt to a variety of roles, job responsibilities, schedules and contexts" (ibid).
			Editorial team member (ET) explained to the editor (E) that he/she had asked a teacher to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: "Adapt to a variety of roles, job responsibilities, schedules and contexts" (ibid).
			Editorial team member (ET) explained to the editor (E) that he/she had asked another adult to take photographs. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions. Outcome: "Adapt to a variety of roles, job responsibilities, schedules and contexts" (ibid).

Table 4.30: Analysis relating to Life and Career skills (continued)

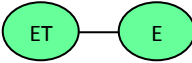
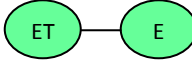
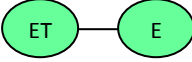
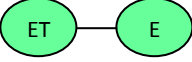
Analysis relating to adapting to change			
Relating to:	Method	Person/s involved	Nature of involvement
Proof-reading and editing of articles	Verbally		<p>Editorial team member (ET) explained to the editor (E) that he/she had asked his/her <i>parents</i> to proof-read and edit the articles. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Adapt to a variety of roles, job responsibilities, schedules and contexts” (ibid).</p>
<p>Interpretation: When editorial team members adapted to change, one degree social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.</p>			
Analysis relating to interacting effectively with others			
Relating to	Method	Person/s involved	Nature of involvement
Cartoons	Verbally		<p>The editorial team member (ET) explained to the editor (E) the cartoons that he/she drew for the school newspaper and the significance of the cartoons. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Know when it is appropriate to listen and when to speak” (ibid).</p>
Analysis relating to interacting effectively with others			
Relating to	Method	Person/s involved	Nature of involvement
Completed articles	Verbally		<p>The editorial team member (ET) explained the completed articles to the editor (E). The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Know when it is appropriate to listen and when to speak” (ibid).</p>
Information			<p>The editorial team member (ET) asked the editor (E) if the information utilised in the articles was adequate. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Know when it is appropriate to listen and when to speak” (ibid).</p>

Table 4.30: Analysis relating to Life and Career skills (continued)

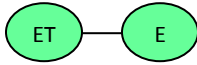
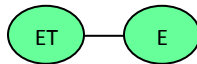
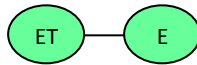
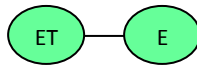
Analysis relating to interacting effectively with others			
Relating to	Method	Person/s involved	Nature of involvement
Layout of articles			<p>Editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the layout of his/her articles. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Know when it is appropriate to listen and when to speak” (ibid).</p>
Photographs			<p>The editorial team member (ET) explained to the editor (E) that another editorial team member was responsible for taking the pictures. The editorial team member explained the photographs that he/she utilised in the articles and the significance of the pictures. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Know when it is appropriate to listen and when to speak” (ibid).</p>
Proof-reading and editing of articles			<p>Editorial team member (ET) explained to the editor (E) that he/she had asked his/her <i>parents</i> to proof-read and edit the articles. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Know when it is appropriate to listen and when to speak” (ibid).</p>
Questionnaire	Verbally		<p>The editorial team member (ET) explained the content of the questionnaires to the editor (E). The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Know when it is appropriate to listen and when to speak” (ibid).</p>

Table 4.30: Analysis relating to Life and Career skills (continued)

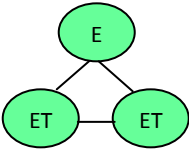

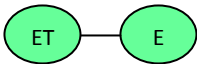
Analysis relating to interacting effectively with others			
Relating to	Method	Person/s involved	Nature of involvement
Team work		 <pre> graph TD E((E)) --- ET1((ET)) E --- ET2((ET)) ET1 --- ET2 </pre>	<p>The editor (E) asked two of the editorial team members (ET), who worked together on articles, whether they enjoyed working together. The two editorial team members responded by saying that they enjoyed working as a team. The editorial team members were comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team members. The degree of this social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Know when it is appropriate to listen and when to speak” (ibid).</p>
<p>Interpretation: When editorial team members interacted effectively with others, one degree and three degree social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.</p>			
Analysis relating to working independently			
Relating to	Method	Person/s involved	Nature of involvement
Articles	Proof-reading and editing of articles	 <pre> graph TD ET((ET)) </pre>	<p>Editorial team member (ET) proof-read and edited his/her articles. The editorial team member was focused and confident. There is no social network, because the editorial team member proof-read and edited the articles without assistance. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete requested without direct oversight” (ibid).</p>
		 <pre> graph LR ET((ET)) --- E((E)) </pre>	<p>Editorial team member (ET) explained to the editor (E) that he/she had asked his/her <i>parents</i> to proof-read and edit the articles. The editorial team member was comfortable and relaxed when talking to the editor. The editor listened with interest to the editorial team member. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete requested without direct oversight” (ibid).</p>

Table 4.30: Analysis relating to Life and Career skills (continued)

Analysis relating to working independently			
Relating to	Method	Person/s involved	Nature of involvement
Articles	Writing	ET	<p>Editorial team member (ET) planned his/her articles. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the articles. This particular social network occurred on numerous occasions.</p> <p>Outcome: "Monitor, define, prioritize and complete requested without direct oversight" (ibid).</p>
Cartoons	Drawing pictures	ET	<p>Editorial team member (ET) planned the layout of his/her cartoons. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the layout of the cartoons. This particular social network occurred on numerous occasions.</p> <p>Outcome: "Monitor, define, prioritize and complete requested without direct oversight" (ibid).</p>
Cartoons	Tabulating	ET	<p>Editorial team member (ET) decided about the focus of his/her cartoon by tabulating the key concepts that would be utilised to draw the cartoons. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular social network occurred on numerous occasions.</p> <p>Outcome: "Monitor, define, prioritize and complete requested without direct oversight" (ibid).</p>
	Visually – drawing pictures and diagrams	ET	<p>Editorial team member (ET) planned the layout of his/her cartoons by drawing pictures and diagrams with keywords. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular social network occurred on numerous occasions.</p> <p>Outcome: "Monitor, define, prioritize and complete requested without direct oversight" (ibid).</p>

Table 4.30: Analysis relating to Life and Career skills (continued)

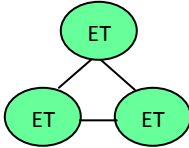


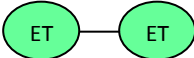
Analysis relating to working independently			
Relating to	Method	Person/s involved	Nature of involvement
Information	Verbally		<p>Another editorial team member (ET) provided information to the two editorial members (ET). The editorial team members were comfortable with one another and were positive towards one another. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete requested without direct oversight” (ibid).</p>
Layout of articles	Writing		<p>Editorial team member (ET) planned the layout of his/her articles. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete requested without direct oversight” (ibid).</p>
			<p>Editorial team member (ET) planned the layout of his/her articles. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete requested without direct oversight” (ibid).</p>
Layout of articles	Writing and verbally		<p>Editorial team member (ET) asked another editorial team member (ET) his/her opinion about the layout of the articles; the team members had decided collectively on the layout. The editorial team members were comfortable with one another and were positive towards one another. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete requested without direct oversight” (ibid).</p>

Table 4.30: Analysis relating to Life and Career skills (continued)





Analysis relating to working independently			
Relating to	Method	Person/s involved	Nature of involvement
Layout of articles	Writing and verbally		<p>Editorial team member (ET) planned the layout of his/her articles by drawing diagrams with keywords. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete requested without direct oversight” (ibid).</p>
	Writing		<p>Editorial team member (ET) planned the photo layout of his/her articles. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete requested without direct oversight” (ibid).</p>
Questionnaire	Writing		<p>Editorial team member (ET) planned the questions he/she would use when interviewing the <i>teachers</i>. The editorial team member was focused and confident. There is no social network, because the editorial team member worked independently on the planning of the layout. This particular event occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete requested without direct oversight” (ibid).</p>
Questionnaire	Written (rewrote questions that would be utilised in the articles)		<p>Editorial team member (ET) proof-read and edited the questions that would be utilised in the interview with the <i>teachers</i>. The editorial team member was focused and confident. There is no social network, because the editorial team member proof-read and edited the questions without assistance. This particular event occurred on numerous occasions.</p> <p>Outcome: “Monitor, define, prioritize and complete requested without direct oversight” (ibid).</p>

Table 4.30: Analysis relating to Life and Career skills (continued)

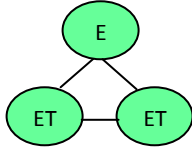
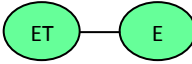
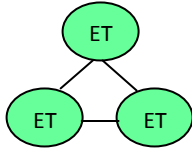
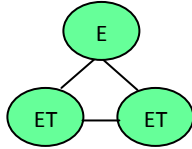
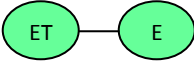
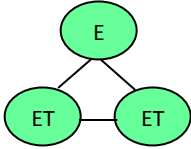
Analysis relating to working independently			
<p>Interpretation: When editorial team members worked independently in a group, one degree and three degree social networks were established. When editorial team members worked independently, no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.</p>			
Analysis relating to guiding and leading others			
Relating to	Method	Person/s involved	Nature of involvement
Content of articles	Verbally		<p>Editor (E) supported two editorial team members (ET) by providing them with advice and guidelines regarding the content of their articles. The editor was kind and willing to assist editorial team members. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: "Use interpersonal problem-solving skills to guide others towards a goal" (ibid).</p>
			<p>Editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the content of his/her articles. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: "Use interpersonal problem-solving skills to guide others towards a goal" (ibid).</p>
			<p>Another editorial team member (ET) provided information to the two editorial members (ET). The degree of the social network is three. The editorial team members were comfortable with one another and were positive towards one another. This particular social network occurred on numerous occasions.</p> <p>Outcome: "Use interpersonal problem-solving skills to guide others towards a goal" (ibid).</p>
Layout of articles	Verbally		<p>Editor (E) supported two editorial team members (ET) by providing them with advice and guidelines regarding the layout of their articles. The editor was kind and willing to assist editorial team members. The degree of the social network is three. This particular social network occurred on numerous occasions.</p> <p>Outcome: "Use interpersonal problem-solving skills to guide others towards a goal" (ibid).</p>

Table 4.30: Analysis relating to Life and Career skills (continued)

Analysis relating to guiding and leading others			
Relating to	Method	Person/s involved	Nature of involvement
Layout of articles	Verbally		<p>Editor (E) supported editorial team member (ET) by providing him/her with advice and guidelines regarding the layout of his/her articles. The editor was kind and willing to assist editorial team members. The degree of this social network is one. This particular social network occurred on numerous occasions.</p> <p>Outcome: "Use interpersonal problem-solving skills to guide others toward a goal" (ibid).</p>
Title	Verbally and visually		<p>Editor (E) supported two editorial team members (ET) by providing them with a bilingual dictionary. The editor was kind and willing to assist editorial team members. The degree of the social network was three. This particular social network occurred on numerous occasions.</p> <p>Outcome: "Use interpersonal problem-solving skills to guide others toward a goal" (ibid).</p>
<p>Interpretation: When editorial team members guided and led one another, one degree and three degree social networks were established.</p>			

The interpretation regarding Life and Career skills is summarised in Table 4.31.

Table 4.31: Summary of interpretations relating to Life and Career skills

Skill	Networks
Adapting to change	When editorial team members adapted to change, one degree social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.
Interacting effectively with others	When editorial team members interacted effectively with others, one degree and three degree social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.
Working independently	When editorial team members worked independently in a group, one degree and three degree social networks were established. When editorial team members worked independently, no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established.
Guiding and leading others	When editorial team members guided and led one another, one degree and three degree social networks were established.

4.2.6 Comparison of analysed data of indirect observation and direct observation

4.2.6.1 Comparison of analysed data relating to the Activity theory

Table 4.32 refers to the comparison of the analysis of the indirect observation and direct observation data relating to the subject-object activity (Planning).

Table 4.32: Comparison of analysed data relating to planning

Analysed data relating to the subject-object-activity (Planning)			
Activity	Direct Observation	Indirect Observation	Difference
The textual content of articles	During the planning of the textual content of the articles one degree and three degree social networks were established when editorial team members worked dependently. When editorial team members worked independently on the textual content of the articles, no social networks were established (See Table 4.3).	During the planning of the textual content of the articles one degree and three degree social networks were established when editorial team members worked dependently. When editorial team members worked independently on the textual content of the articles, no social networks were established (See Table 4.17).	No difference
The layout of the articles	Editorial team members worked independently on the layout of the articles; no social networks were established (See Table 4.3).	Editorial team members worked independently on the layout of the articles; no social networks were established (See Table 4.17).	No difference
The photo layout of the articles	Editorial team members worked independently on the layout of the articles; no social networks were established (See Table 4.3).	Editorial team members worked independently on the layout of the articles; no social networks were established (See Table 4.17).	No difference
The focus of cartoons	Editorial team members worked independently on the focus of the cartoons; no social networks were established (See Table 4.3).	When editorial team members worked independently on the focus of the cartoons, no social networks were established (See Table 4.17).	No difference
The layout of cartoons	Editorial team members worked independently on the layout of the cartoons; no social networks were established (See Table 4.3).	Editorial team members worked independently on the layout of the cartoons; no social networks were established (See Table 4.17).	No difference
The focus of questionnaires	Editorial team members worked independently on the focus of the questionnaires; no social networks were established (See Table 4.3).	When editorial team members worked independently on the focus of the questionnaires, no social networks were established (See Table 4.17).	No difference

Table 4.33 refers to the comparison of the analysis of the indirect observation and direct observation data relating to the subject-object activity (Evaluation).

Table 4.33: Comparison of analysed data relating to evaluation

Analysed data relating to the subject-object-activity (Evaluation)			
Activity	Direct Observation	Indirect Observation	Difference
The textual content of articles	Editorial team members worked independently on the textual content of the articles; no social networks were established (See Table 4.5).	During the evaluation of the textual content of the articles one degree social networks were established with <i>parents</i> . When editorial team members worked independently on the textual content of the articles, no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established (See Table 4.19).	Indirect Observation: <ul style="list-style-type: none"> During the evaluation of the textual content of the articles one degree social networks were established with <i>parents</i>. When the editorial members explained their planning and work method to the editor, one degree social networks were established.
The length of the articles	Editorial team members worked dependently during the evaluation of the length of the articles; therefore one degree social networks were established (See Table 4.5).	During the evaluation of the length of the articles when editorial team members worked dependently, one degree social networks were established (See Table 4.19).	No difference
The layout of the articles	Editorial team members worked dependently during the evaluation of the layout of the articles; therefore one degree social networks were established (See Table 4.5).	During the evaluation of the layout of the articles when editorial team members worked dependently, one degree social networks were established (See Table 4.19).	No difference
The photo layout of the articles	Editorial team members worked dependently during the evaluation of the photo layout of the articles; therefore one degree social networks were established (See Table 4.5).	During the evaluation of the photo layout of the articles when editorial team members worked dependently, one degree social networks were established (See Table 4.19).	No difference

Table 4.33: Comparison of analysed data relating to evaluation (continued)

Analysed data relating to the subject-object-activity (Evaluation)			
Activity	Direct Observation	Indirect Observation	Difference
The cartoons	Editorial team members worked dependently during the evaluation of the cartoons; therefore one degree social networks were established (See Table 4.5).	During the planning of the evaluation of the cartoons when editorial team members worked dependently, one degree social networks were established (See Table 4.19).	No difference
The questionnaires	Editorial team members worked dependently during the evaluation of the questionnaires; therefore one degree social networks were established (See Table 4.5).	During the evaluation of the questionnaires when editorial team members worked dependently, one degree social networks were established (See Table 4.19).	No difference
The team work between editorial members	When the editor wanted to establish the editorial team members' thoughts on working together on articles, three degree social networks were established (See Table 4.5).	When the editor wanted to establish the editorial team members' thoughts on working together on articles, three degree social networks were established (See Table 4.19).	No difference
The completed articles	Editorial team members worked dependently during the evaluation of the completed articles; therefore one degree social networks were established (See Table 4.5).	During the evaluation of the completed articles when the editorial members explained their planning and work method to the editor, one degree social networks were established (See Table 4.19).	No difference

Table 4.34 refers to the comparison of the analysis of the indirect observation and direct observation data relating to the paper-based tools.

Table 4.34: Comparison of analysed data relating to paper-based tools

Analysed data relating to paper-based tools			
Activity	Direct Observation	Indirect Observation	Difference
Planning of articles	Editorial team members worked independently on the planning the articles; no social networks were established (See Table 4.7).	Editorial team members worked independently on planning the articles; no social networks were established (See Table 4.21).	No difference

Table 4.34: Comparison of analysed data relating to paper-based tools (continued)

Analysed data relating to paper-based tools			
Activity	Direct Observation	Indirect Observation	Difference
Layout of articles	When editorial team members worked independently on the layout of the articles, no social networks were established (See Table 4.7).	When editorial team members worked independently on the layout of the articles, no social networks were established (See Table 4.21).	No difference
Planning of cartoons	Editorial team members worked independently on the planning of the cartoons; no social networks were established (See Table 4.7).	Editorial team members worked independently on the planning of the cartoons; no social networks were established (See Table 4.21).	No difference
Constructing questionnaires	When editorial team members worked independently on constructing questionnaires, no social networks were established (See Table 4.7).	When editorial team members worked independently on constructing questionnaires, no social networks were established (See Table 4.21).	No difference
Consulting a dictionary	Editorial team members worked together when they consulted a dictionary and therefore one degree social networks were established (See Table 4.7).	Editorial team members worked together when they consulted a dictionary and therefore one degree social networks were established (See Table 4.21).	No difference

Table 4.35 refers to the comparison of the analysis of the indirect observation and direct observation data relating to the digital tools.

Table 4.35: Comparison of analysed data relating to digital tools

Analysed data relating to digital tools			
Activity	Direct Observation	Indirect Observation	Difference
The typing and emailing of articles	(Intentionally blank)	Editorial team members worked without assistance when typing and emailing the articles; no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established (See Table 4.23).	Indirect Observation: <ul style="list-style-type: none"> Editorial team members explained their planning and work method to the editor; therefore one degree social networks were established. However, they explained that they had typed and emailed the articles on their own; therefore no social networks were established.

Table 4.35: Comparison of analysed data relating to digital tools (continued)

Analysed data relating to digital tools			
Activity	Direct Observation	Indirect Observation	Difference
Creating shapes	(Intentionally blank)	Editorial team members worked independently when creating shapes and therefore no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established (See Table 4.23).	Indirect Observation: <ul style="list-style-type: none"> • Editorial team members explained their planning and work method to the editor; therefore one degree social networks were established. • They explained that they had created the shapes on their own; therefore no social networks were established.
Taking photos for the articles	(Intentionally blank)	During planning the taking of photos one degree social networks were established when team members requested <i>parents, teachers, other adults, team members</i> and the <i>editor</i> to take the photos. When editorial team members worked independently when taking photos, no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established (See Table 4.23).	Indirect Observation: <ul style="list-style-type: none"> • Editorial team members explained their planning and work method to the editor; therefore one degree social networks were established. • They explained that they had requested other parties to assist them with taking the photos and one degree social networks were also established between the different parties.
Emailing and scanning the cartoons	(Intentionally blank)	During the emailing and scanning of cartoons, editorial team members worked independently; no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established (See Table 4.23).	Indirect Observation: <ul style="list-style-type: none"> • Editorial team members explained their planning and work method to the editor; therefore one degree social networks were established. • They explained that they had scanned the cartoons their own; therefore no social networks were established.

Table 4.36 refers to the comparison of the analysis of the indirect observation and direct observation data relating to the division of labour.

Table 4.36: Comparison of analysed data relating to the division of labour

Observation data relating to the division of labour			
Activity	Direct Observation	Indirect Observation	Difference
Division of Labour	During the Division of Labour activity one degree social networks were established when editorial team members worked dependently (See Table 4.9).	During the Division of Labour activity one degree social networks were established when editorial team members worked dependently. When the editorial members explained their planning and work method to the editor, one degree social networks were established (See Table 4.25).	No difference

4.2.6.2 Comparison of analysed data relating to the 21st Century Skills

Table 4.37 refers to the comparison of the analysis of the indirect observation and direct observation data relating to Learning and Innovation skills.

Table 4.37: Comparison of analysed data relating to the Learning and Innovation skills

Analysed data relating to Learning and Innovation skills			
Skills	Direct Observation	Indirect Observation	Difference
Solving problems	During the solving of problems, one degree and three degree social networks were established when editorial team members worked dependently (See Table 4.20).	During the solving of problems, one degree and three degree social networks were established (See Table 4.27).	No difference
Collaborating with others	When editorial team members collaborated with others, one degree and three degree social networks were established (See Table 4.20).	When editorial team members collaborated with others, one degree and three degree social networks were established (See Table 4.27).	No difference
Working creatively with others	When editorial team members worked creatively with others, one degree and three degree social networks were established (See Table 4.20).	When editorial team members worked creatively with others, one degree and three degree social networks were established (See Table 4.27).	No difference

Table 4.37: Comparison of analysed data relating to Learning and Innovation skills (continued)

Analysed data relating to Learning and Innovation skills			
Skills	Direct Observation	Indirect Observation	Difference
Communicating clearly	When editorial members communicated clearly with others, one degree social networks were established (See Table 4.20).	When editorial members communicated clearly with others, one degree social networks were established (See Table 4.27).	No difference
Thinking creatively	When editorial team members thought creatively and worked dependently, one degree and three degree social networks were established. When editorial team members worked independently on their articles, no social networks were established (See Table 4.20).	When editorial team members thought creatively, one degree and three degree social networks were established. When editorial team members worked independently on their articles, no social networks were established (See Table 4.27).	No difference

Table 4.38 refers to the comparison of the analysis of the indirect observation and direct observation data relating to Information, Media and Technology skills.

Table 4.38: Comparison of analysed data relating to Information, Media and Technology skills

Analysed data relating to Information, Media and Technology skills			
Skills	Direct Observation	Indirect Observation	Difference
Accessing and evaluating information	When editorial team members accessed and evaluated information and worked dependently, one degree and three degree social networks were established. When editorial team members worked independently on their articles, no social networks were established (See Table 4.12).	When editorial team members accessed and evaluated information, one degree and three degree social networks were established. When editorial team members worked independently on their articles, no social networks were established (See Table 4.29).	No difference

Table 4.38: Comparison of analysed data relating to Information, Media and Technology skills (continued)

Analysed data relating to Information, Media and Technology skills			
Skills	Direct Observation	Indirect Observation	Difference
Creating media products	(Intentionally blank)	When editorial team members created media products and worked dependently, one degree social networks were established. When editorial team members independently created media products, no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established (See Table 4.29).	Indirect Observation: <ul style="list-style-type: none"> • Editorial team members established one degree social networks when they worked dependently. • Editorial team members established no social networks when they worked independently. • One degree social networks were established when editorial team members explained their planning and work method to the editor.
Applying technology effectively	(Intentionally blank)	When editorial team members applied technology effectively, one degree social networks were established. When editorial team members independently applied technology effectively, no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established (See Table 4.29).	Indirect Observation: <ul style="list-style-type: none"> • Editorial team members established one degree social networks when they worked dependently. • Editorial team members established no social networks when they worked independently. • One degree social networks were established when editorial team members explained their planning and work method to the editor.

Table 4.39 refers to the comparison of the analysis of the indirect observation and direct observation data relating to Life and Career skills.

Table 4.39: Comparison of analysed data relating to Life and Career skills

Analysed data relating to Life and Career skills			
Skills	Direct Observation	Indirect Observation	Difference
Adapting to change	When editorial team members adapted to change and worked dependently, one degree social networks were established (See Table 4.15).	When editorial team members adapted to change, one degree social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established (See Table 4.31).	No difference
Interacting effectively with others	When editorial team members interacted effectively with others, one degree and three degree social networks were established (See Table 4.15).	When editorial team members interacted effectively with others, one degree and three degree social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established (See Table 4.31).	No difference
Working independently	When editorial team members worked dependently in a group, one degree and three degree social networks were established. When editorial team members worked independently, no social networks were established (See Table 4.15).	When editorial team members worked independently in a group, one degree and three degree social networks were established. When editorial team members worked independently, no social networks were established. When the editorial members explained their planning and work method to the editor, one degree social networks were established (See Table 4.31).	No difference
Guiding and leading others	When editorial team members guided and led others, one degree and three degree social networks were established (See Table 4.15).	When editorial team members guided and led others, one degree and three degree social networks were established (See Table 4.31).	No difference

4.2.7 Analysis of data relating to the interviews

4.2.7.1 Analysis of data relating to interviews with the editor

Table 4.40 refers to the data relating to the interviews with the editor. Data was analysed by using process coding.

Table 4.40: Data relating to the interview with the editor

Process conducted by editor		
Topics addressed	Indicated by editor	Indicated by editorial team members
Correctness of planning	<ul style="list-style-type: none"> • Planning of school newspaper. • Composing operating plan in collaboration with editorial team members. 	<ul style="list-style-type: none"> • Helping team members to organise their work.
Execution of planning	<ul style="list-style-type: none"> • Amending plan according to external factors. • Amending approach in a way that does not influence the work approach. 	<ul style="list-style-type: none"> • Ensuring execution of plan. • Amending plan when needed.
Feasibility of an emergency plan	<ul style="list-style-type: none"> • Dealing with obstructions. • Planning an alternative plan as team. 	(Intentionally left blank)
Explanation of the process	<ul style="list-style-type: none"> • Meeting on a weekly basis. • Discussing operating plan at the beginning of the year. • Setting out every work method. 	<ul style="list-style-type: none"> • Explaining work method at the beginning of the year. • Meeting on a weekly basis. • Assisting editorial team members with their articles during weekly meetings.
Explaining of objectives	<ul style="list-style-type: none"> • Discussing each editorial team member's article allocated to him/her. 	<ul style="list-style-type: none"> • Discussing each editorial team member's article allocated to him/her.
Ambiguity of objectives	<ul style="list-style-type: none"> • Evaluation of article. • Discussing article. • Establishing whether editorial team members understood the assignment. 	(Intentionally left blank)

Table 4.40: Data relating to the interviews with the editor (continued)

Process conducted by editor		
Topics addressed	Indicated by editor	Indicated by editorial team members
Correctness of time schedule	<ul style="list-style-type: none"> Rectifying false notions during the meetings. Changing and improving time schedule. 	(Intentionally left blank)
Fixed time schedule	<ul style="list-style-type: none"> Planning time schedule in detail. 	(Intentionally left blank)
Completeness of time schedule	<ul style="list-style-type: none"> Changing of time schedule. 	(Intentionally left blank)
Realistic deadlines	(Intentionally left blank)	(Intentionally left blank)
Fixed deadline	<ul style="list-style-type: none"> Making editorial team members aware of time schedule. 	<ul style="list-style-type: none"> Adhering to time schedule.
Evaluation of assignments	<ul style="list-style-type: none"> Evaluating work continuously. Suggesting ideas. Working occasionally alongside editorial team member on changes. 	<ul style="list-style-type: none"> Evaluating work continuously. Sometimes asking for changes.
Asking for advice	<ul style="list-style-type: none"> Providing guidance and advice. 	<ul style="list-style-type: none"> Providing guidance and advice.
Defending points of view	(Intentionally left blank)	(Intentionally left blank)
Usage of (computer) skills	<ul style="list-style-type: none"> Evaluating editorial team members' work before they used a computer to type their work. 	(Intentionally left blank)
Improvement of (computer) skills	<ul style="list-style-type: none"> Attending annual MIC course. 	(Intentionally left blank)
Tolerance of team members	<ul style="list-style-type: none"> Tolerating editorial team members. Encouraging some members to work more diligently. Addressing members positively. 	(Intentionally left blank)
Displaying honest intentions	(Intentionally left blank)	(Intentionally left blank)
Establishing positive attitudes	<ul style="list-style-type: none"> Establishing a positive, pleasant atmosphere during working session. Establishing a positive, pleasant atmosphere during project. Avoiding unpleasantness. Working well together. 	(Intentionally left blank)

Table 4.40: Data relating to the interviews with the editor (continued)

Process conducted by editor		
Topics addressed	Indicated by editor	Indicated by editorial team members
Improvement of inter-personal skills	<ul style="list-style-type: none"> Improving the school newspaper with every edition. 	(Intentionally left blank)
Improvement of communication skills	<ul style="list-style-type: none"> Encouraging editorial team members to conduct interviews. 	(Intentionally left blank)
Presenting career opportunities	<ul style="list-style-type: none"> Communicating possible career opportunities on a regular basis. Aiming to establish a passion for the work. 	(Intentionally left blank)

The processes frequently used by the editor are indicated in Table 4.41.

Table 4.41: Processes frequently used

Processes frequently used by the editor	
<ul style="list-style-type: none"> Planning Amending Meeting Discussing Evaluating Establishing 	<ul style="list-style-type: none"> Providing guidance and advice Changing Improving Working as a team Encouraging Helping/Assisting

4.2.7.2 Analysis of data relating to interviews with the editorial team members

Table 4.42 refers to the data relating to the interviews with the editorial team members. Data was analysed by using the Process Coding.

Table 4.42: Data relating to the interviews with the editorial team members

Process conducted by editorial team members		
Topics addressed	Indicated by editor	Indicated by editorial team members
Correctness of planning	(Intentionally left blank)	<ul style="list-style-type: none"> Organising work.
Execution of planning	(Intentionally left blank)	(Intentionally left blank)
Feasibility of an emergency plan	<ul style="list-style-type: none"> Accommodating and assisting one another in unforeseeable situations. 	<ul style="list-style-type: none"> Asking editor for assistance.
Explanation of the process	<ul style="list-style-type: none"> Meeting on a weekly basis. Asking questions during meetings. 	<ul style="list-style-type: none"> Meeting on a weekly basis.
Explaining of objectives	<ul style="list-style-type: none"> Receiving goals for every edition. 	(Intentionally left blank)
Ambiguity of objectives	<ul style="list-style-type: none"> Knowing the specific goal for the article. Establishing the trend/market for which the articles should be written. Understanding the goal. Asking when uncertain. 	(Intentionally left blank)
Correctness of time schedule	<ul style="list-style-type: none"> Changing and improving time schedule. 	(Intentionally left blank)
Fixed time schedule	<ul style="list-style-type: none"> Adhering to time schedule. Submitting articles for printing. Having cameras available at all times. 	<ul style="list-style-type: none"> Adhering strictly to time schedule.
Completeness of time schedule	<ul style="list-style-type: none"> Changing of time schedule. 	(Intentionally left blank)

Table 4.42: Data relating to the interviews with the editorial team members (continued)

Process conducted by editorial team members		
Topics addressed	Indicated by editor	Indicated by editorial team members
Realistic deadlines	<ul style="list-style-type: none"> • Achieving deadlines. • Realising they work under pressure. • Dealing with pressure. 	<ul style="list-style-type: none"> • Working under pressure. • Achieving deadlines.
Fixed deadline	<ul style="list-style-type: none"> • Paying attention to final date. • Submitting work on final date. • Working according to final date. 	<ul style="list-style-type: none"> • Adhering to time schedule. • Organising planning. • Working according to final date.
Evaluation of assignments	<ul style="list-style-type: none"> • Applying changes and adjustments. • Making adjustments by using his/her own initiative and creativity. • Evaluating one another's work. • Assisting one another. • Making changes. 	<ul style="list-style-type: none"> • Evaluating one another's work. • Proofreading and editing of work by parents.
Asking for advice	<ul style="list-style-type: none"> • Discussing ideas and asking editor's opinion. • Asking editor questions relating to article issues. 	<ul style="list-style-type: none"> • Acquiring guidance and advice from editor. • Discussing ideas and asking editor's opinion.
Defending points of view	(Intentionally left blank)	<ul style="list-style-type: none"> • Explaining work method to editor.
Usage of (computer) skills	<ul style="list-style-type: none"> • Creating end product on computer. • Emailing articles to editor. • Utilising a pen and paper firstly for planning. • Evaluating their planning. • Utilising various programs, e.g. Corel Draw and Publisher. 	<ul style="list-style-type: none"> • Typing article on computer. • Emailing articles to editor. • Learning to use various programs.
Improvement of (computer) skills	<ul style="list-style-type: none"> • Learning new things with every edition. • Attending annual MIC course. 	<ul style="list-style-type: none"> • Attending annual MIC course.
Tolerance of team members	<ul style="list-style-type: none"> • Encouraging one another. 	<ul style="list-style-type: none"> • Listening to one another's ideas and tolerating one another.

Table 4.42: Data relating to the interview with the editorial team members (continued)

Process conducted by editorial team members		
Topics addressed	Indicated by editor	Indicated by editorial team members
Displaying honest intentions	<ul style="list-style-type: none"> Ensuring that facts are correct. Receiving permission from the person being mocked. 	<ul style="list-style-type: none"> Ensuring that facts are correct.
Establishing positive attitudes	<ul style="list-style-type: none"> Avoiding unpleasantness. Working together. 	(Intentionally left blank)
Improvement of inter-personal skills	<ul style="list-style-type: none"> Realising that their style of writing and skills were developing. Improving the school newspaper with every edition. Developing inter-personal skills. 	<ul style="list-style-type: none"> Learning more about themselves.
Improvement of communication skills	<ul style="list-style-type: none"> Developing communication skills. 	<ul style="list-style-type: none"> Developing communication skills.
Presenting career opportunities	<ul style="list-style-type: none"> Developing an interest in journalism and photography. 	<ul style="list-style-type: none"> Learning more about journalism and photography.

The following processes were frequently used by the editorial team members:

Table 4.43: Processes frequently used by editorial team members

Processes frequently used by editorial team members		
<ul style="list-style-type: none"> Asking Changing Improving Realising Adhering to time schedule Ensuring facts are correct 	<ul style="list-style-type: none"> Evaluating Learning Developing Organising Paying attention Attending courses 	<ul style="list-style-type: none"> Assisting Meeting Receiving goals Applying changes Discussing

Chapter 5

Interpretation

5.1 Introduction

In Chapter 5 the interpretation of the study is in the form of principles discussed in paragraph 5.2. The recommendations are discussed in paragraph 5.3.

5.2 Principles relating to the construction of a school newspaper

During the analysis of the data open-coding (See Addendum C) and axial coding (see par. 4.1.7.1) were used. On completion of the data analysis, six principles were identified. The principles were identified by applying selective coding. Figure 5.1 refers to the recommended categories of principles to use when undertaking the task of constructing a school newspaper.

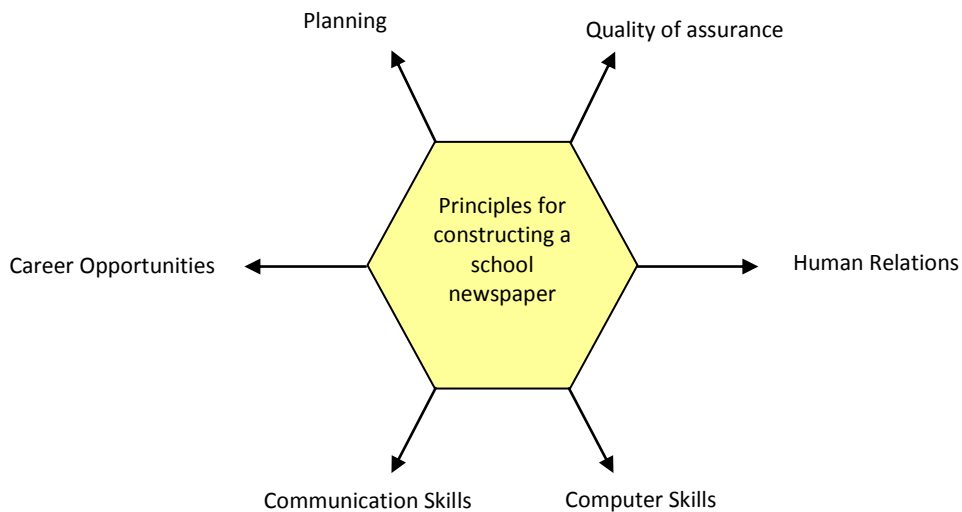


Figure 5.1: Principles for constructing a school newspaper

The six categories of principles indicated in Figure 5.1 are discussed in paragraph 5.2.1.

5.2.1 Explanation of the principles

5.2.1.1 Principles relating to planning

The principles relating to planning address the following events:

- The planning process
- Explanation of the objectives
- The planning of the time schedule

Table 5.1 refers to the principles relating to planning.

Table 5.1: Principles relating to planning

Planning process
<p>The planning process must include the following actions:</p> <ul style="list-style-type: none"> ▪ The composition of an operating plan during the planning phase of the school newspaper to ensure the execution of the operating plan. ▪ The development of support strategies to assist team members to organise their work during the planning phase in order to ensure the implementation of the operating plan is correct. ▪ The development of strategies to amend the operating plan according to external factors when they occur and therefore minimising uncertainty amongst team members. ▪ The development of strategies to amend the work approach to ensure that the work approach is not influenced. ▪ The development of strategies to deal with obstructions that may occur in order to ensure team members are well enlightened. ▪ A discussion of the operating plan and work approach at the beginning of the year so that the team members are well informed. ▪ A discussion of each team member's article allocated to him/her during meetings to ensure team members understand the objectives of their articles.
Explanation of objectives
<p>The explanation of objectives must include the following actions:</p> <ul style="list-style-type: none"> ▪ Creating opportunities to ask the editor when uncertain about every edition's objectives during meetings. ▪ The explanation of the edition objectives for every edition during meetings to ensure team members are well informed. ▪ Providing sufficient time for team members to comprehend the edition objectives for each article to ensure team members work more effectively. ▪ Establishing whether team members understand their assignments allocated to them in order to ensure the success of the edition. ▪ Establishing during meetings the trend/market for which the articles should be written.

Table 5.1: Principles relating to planning (continued)

The planning of the time schedule
<p>The planning of the time schedule must include the following actions:</p> <ul style="list-style-type: none"> ▪ The planning of a detailed time schedule at the beginning of every edition to ensure realistic deadlines for the editions. ▪ The formulation of strategies to change and improve the time schedule during meetings to ensure the realistic deadlines are met. ▪ The development of activities to adhere to the time schedule of every edition in order to ensure team members work more effectively.
<ul style="list-style-type: none"> ▪ The development of activities to adhere to the final date of submitting work for printing to make certain the deadlines for each edition are met.
<ul style="list-style-type: none"> ▪ The development of support strategies to assist team members to organise their work according to the time schedule in order to deal with pressure in a positive manner.

5.2.1.2 Principles relating to quality assurance

The principles relating to quality assurance address the following activities:

- Evaluation
- Providing advice
- Defending points of view

Table 5.2 refers to the principles relating to quality assurance.

Table 5.2: Principles relating to quality assurance

Evaluation
<p>Evaluation must include the following actions:</p> <ul style="list-style-type: none"> ▪ The continuous evaluation of work during meetings to determine whether the articles' objectives are met. ▪ The proofreading and editing of work during meetings in order to establish the necessary changes team members must make to their articles. ▪ The development of activities to ask for changes; suggest ideas and to work alongside team members in making changes to articles. ▪ Creating opportunities to make adjustments by using their own initiative and creativity during the evaluation event which will ensure the development of journalistic/writing skills. ▪ The formulation of support strategies to assist team members with the evaluation of their articles that will help them to make adequate changes.
Providing advice
<p>Providing advice must include the following actions:</p> <ul style="list-style-type: none"> ▪ The development of strategies to provide guidance and advice relating to article matters during meetings to ensure team members work more effectively.

Table 5.2: Principles relating to quality assurance (continued)

Defending points of view
<p>Defending points of view must include the following actions:</p> <ul style="list-style-type: none"> ▪ Providing sufficient opportunities for team members to explain their work method to the editor that will create room for the improvement of the articles.

5.2.1.3 Principles relating to human relations

The principles relating to human relations address the following values:

- Tolerating team members
- Displaying honesty
- Developing attitudes

Table 5.3 refers to the principles relating to human relations.

Table 5.3: Principles relating to human relations

Tolerating team members
<p>Tolerating team members must include the following actions:</p> <ul style="list-style-type: none"> ▪ The encouraging of team members by the editor during meetings to ensure team members work more diligently. ▪ The development of activities to listen to one another's ideas during meetings that will promote tolerance amongst team members. ▪ Addressing team members positively during meetings that will contribute to a positive work method.
Displaying honesty
<p>Displaying honesty must include the following actions:</p> <ul style="list-style-type: none"> ▪ Checking the correctness of facts during meetings to prevent false reporting in articles. ▪ Acquiring permission from persons involved in articles to ensure that no misleading views of the persons involved are represented.
Developing attitudes
<p>Developing attitudes must include the following actions:</p> <ul style="list-style-type: none"> ▪ The development of strategies to promote a positive, pleasant atmosphere during meetings and the duration of the project that will contribute to team members working more effectively. ▪ Encouraging team members to work as a team during meetings that will limit the occurrence of unpleasantness amongst team members.

5.2.1.4 Principles relating to computer skills

The principles relating to computer skills address the following activities:

- Evaluation of computer skills
- Attending courses
- Acquiring new skills

Table 5.4 refers to the principles relating to computer skills.

Table 5.4: Principles relating to computer skills

Evaluation of computer skills
Evaluation of computer skills must include the following action: <ul style="list-style-type: none"> ▪ The evaluation of team members' work during meetings to make certain the required changes have been made before team members type their work.
Attending courses
Attending courses must include the following action: <ul style="list-style-type: none"> ▪ Attending annual computer courses to improve team members' knowledge of computer programs.
Acquiring new skills
Acquiring new skills must include the following action: <ul style="list-style-type: none"> ▪ Creating opportunities for team members to learn new things with every edition that will improve the school newspaper.

5.2.1.5 Principles relating to communication skills

The principles relating to communication skills address the following actions:

- Acquiring interpersonal communication skills
- Acquiring written communication skills
- Acquiring oral communication skills

Table 5.5 refers to the principles relating to communication skills.

Table 5.5: Principles relating to communication skills

Acquiring interpersonal communication skills
Acquiring interpersonal communication skills must include the following action: <ul style="list-style-type: none"> ▪ Providing sufficient opportunities for team members to learn more about themselves during meetings that will contribute to the development of interpersonal skills.

Table 5.5: Principles relating to communication skills (continued)

Acquiring written communication skills
Acquiring written communication skills must include the following action: <ul style="list-style-type: none"> ▪ Encouraging of team members to develop their own unique writing style with every article they write that will improve the school newspaper with every edition.
Oral communication skills
Acquiring oral communication skills must include the following action: <ul style="list-style-type: none"> ▪ Encouraging team members to conduct interviews relating to their articles that will contribute to the development of their communication skills.

5.2.1.6 Principle relating to career opportunities

Table 5.6 refers to the principle relating to career opportunities.

Table 5.6: Principle relating to career opportunities

Career opportunities
Making learners aware of career opportunities must include the following action: <ul style="list-style-type: none"> ▪ Discussing possible career opportunities during meetings with team members that will create a passion for journalism and photography.

5.3 Newly identified principles relating to the construction of a school newspaper

Table 5.7 indicates literature addressing the newly identified principles. The principles in the left column are from paragraphs 5.2.1 to 5.2.6.

Table 5.7: Available literature on identified principles

Guideline	Literature
The composition of an operating plan during the planning phase of the school newspaper to ensure the execution of the operating plan.	No literature was found relating to the guideline: The composition of an operating plan during the planning phase of the school newspaper to ensure the execution of the operating plan.
The development of support strategies to assist team members to organise their work during the planning phase in order to ensure the implementation of the operating plan is correct.	No literature was found relating to the guideline: The development of support strategies to assist team members to organise their work during the planning phase in order to ensure the implementation of the operating plan is correct.
The development of strategies to amend the operating plan according to external factors when they occur and thereby minimising uncertainty amongst team members.	No literature was found relating to the guideline: The development of strategies to amend the operating plan according to external factors when they occur and thereby minimising uncertainty amongst team members.

Table 5.7: Available literature on identified principles (continued)

Guideline	Literature
The development of strategies to amend the work approach to ensure that the work approach is not influenced.	No literature was found relating to the guideline: The development of strategies to amend the work approach to ensure that the work approach is not influenced.
The development of strategies to deal with obstructions that may occur in order to ensure team members are well enlightened.	No literature was found relating to the guideline: The development of strategies to deal with obstructions that may occur in order to ensure team members are well enlightened.
A discussion of the operating plan and work approach at the beginning of the year so that the team members are well informed.	No literature was found relating to the guideline: A discussion of the operating plan and work approach at the beginning of the year so that the team members are well informed.
A discussion of each team member's article allocated to him/her during meetings to ensure team members understand the objectives of their articles.	No literature was found relating to the guideline: A discussion of each team member's article allocated to him/her during meetings to ensure team members understand the objectives of their articles.
Creating opportunities to ask the editor when uncertain about every edition's objectives during meetings.	No literature was found relating to the guideline: Creating opportunities to ask the editor when uncertain about every edition's objectives during meetings.
The explanation of the edition objectives for every edition during meetings to ensure team members are well informed.	No literature was found relating to the guideline: The explanation of the edition objectives for every edition during meetings to ensure team members are well informed.
Providing sufficient time for team members to comprehend the edition objectives for each article to ensure team members work more effectively.	No literature was found relating to the guideline: Providing sufficient time for team members to comprehend the edition objectives for each article to ensure team members work more effectively.
Establishing whether team members understand the assignments allocated to them in order to ensure the success of the edition.	No literature was found relating to the guideline: Establishing whether team members understand the assignments allocated to them in order to ensure the success of the edition.
Establishing during meetings the trend/market for which the articles should be written.	No literature was found relating to the guideline: Establishing during meetings the trend/market for which the articles should be written.
The planning of a detailed time schedule at the beginning of every edition to ensure realistic deadlines for the edition.	<ul style="list-style-type: none"> Thomas, W. (1995). When "Student Empowerment" Works Too Well: Adventures in Publishing by a Former High. Retrieved April 1, 2011 from: http://www.jstor.org/stable/820586
The formulation of strategies to change and improve the time schedule during meetings to ensure the realistic deadlines are met.	No literature was found relating to the guideline: The formulation of strategies to change and improve the time schedule during meetings to ensure the realistic deadlines are met.
The development of activities to adhere to the time schedule of every edition in order to ensure team members work more effectively.	No literature was found relating to the guideline: The development of activities to adhere to the time schedule of every edition in order to ensure team members work more effectively.
The development of activities to adhere to the final date of submitting work for printing to make certain the deadlines for each edition are met.	No literature was found relating to the guideline: The development of activities to adhere to the final date of submitting work for printing to make certain the deadlines for each edition are met.
The development of support strategies to assist team members to organise their work according to the time schedule in order to deal with pressure in a positive manner.	No literature was found relating to the guideline: The development of support strategies to assist team members to organise their work according to the time schedule in order to deal with pressure in a positive manner.
The continuous evaluation of work during meetings to determine whether the articles' objectives are met.	<ul style="list-style-type: none"> Johnston, P. (1987). Teachers as Evaluation Experts Author: The Reading Teacher, Vol. 40, No. 8, The State of Assessment in Reading. Retrieved April 1, 2011 from: http://www.jstor.org/stable/20199613

Table 5.7: Available literature on identified principles (continued)

Guideline	Literature
The proofreading and editing of work during meetings in order to establish the necessary changes team members must make to their articles.	<ul style="list-style-type: none"> Thomas, W. (1995). When "Student Empowerment" Works Too Well: Adventures in Publishing by a Former High. Retrieved April 1, 2011 from: http://www.jstor.org/stable/820586
The development of activities to ask for changes; suggesting ideas and working alongside team members in making changes to articles.	<ul style="list-style-type: none"> Thomas, W. (1995). When "Student Empowerment" Works Too Well: Adventures in Publishing by a Former High. Retrieved April 1, 2011 from: http://www.jstor.org/stable/820586
Creating opportunities to make adjustments by using their own initiative and creativity during the evaluation event that will ensure the development of journalistic/writing skills.	<ul style="list-style-type: none"> Thomas, W. (1995). When "Student Empowerment" Works Too Well: Adventures in Publishing by a Former High. Retrieved April 1, 2011 from: http://www.jstor.org/stable/820586
The formulation of support strategies to assist team members with the evaluation of their articles that will help them to make adequate changes.	No literature was found relating to the guideline: The formulation of support strategies to assist team members with the evaluation of their articles that will help them to make adequate changes.
The development of strategies to provide guidance and advice relating to article matters during meetings to ensure team members work more effectively.	<ul style="list-style-type: none"> Dennis, J. (1998). Prior review in the high school newspaper: Perceptions, practices and effects. Retrieved April 1, 2011 from: http://www.gspa.uga.edu/Forms/dennis_joseph_g_200705_ma.pdf
Providing sufficient opportunities for team members to explain their work method to the editor that will create room for the improvement of the articles.	<ul style="list-style-type: none"> Thomas, W. (1995). When "Student Empowerment" Works Too Well: Adventures in Publishing by a Former High. Retrieved April 1, 2011 from: http://www.jstor.org/stable/820586 Dennis, J. (1998). Prior review in the high school newspaper: Perceptions, practices and effects. Retrieved April 1, 2011 from: http://www.gspa.uga.edu/Forms/dennis_joseph_g_200705_ma.pdf
Encouraging team members by the editor during meetings to ensure team members work more diligently.	<ul style="list-style-type: none"> Dennis, J. (1998). Prior review in the high school newspaper: Perceptions, practices and effects. Retrieved April 1, 2011 from: http://www.gspa.uga.edu/Forms/dennis_joseph_g_200705_ma.pdf
The development of activities to listen to one another's ideas during meetings that will promote tolerance amongst team members.	<ul style="list-style-type: none"> Dennis, J. (1998). Prior review in the high school newspaper: Perceptions, practices and effects. Retrieved April 1, 2011 from: http://www.gspa.uga.edu/Forms/dennis_joseph_g_200705_ma.pdf
Addressing team members positively during meetings that will contribute to a positive work method.	<ul style="list-style-type: none"> Dennis, J. (1998). Prior review in the high school newspaper: Perceptions, practices and effects. Retrieved April 1, 2011 from: http://www.gspa.uga.edu/Forms/dennis_joseph_g_200705_ma.pdf
Checking the correctness of facts during meetings to prevent false reporting in articles.	<ul style="list-style-type: none"> Schutte, T.H. & Lincoln, C.E. (1935). The High School Newspaper in the Secondary Schools Accredited by the Southern Association of Colleges and Secondary Schools. Retrieved April 3, 2011 from: http://www.jstor.org/stable/1487159
Acquiring permission from persons involved in articles to ensure that no misleading views of the persons involved are represented.	No literature was found relating to the guideline: Acquiring permission from persons involved in articles to ensure that no misleading views of the persons involved are represented.
The development of strategies to promote a positive, pleasant atmosphere during meetings and the duration of the project that will contribute to team members working more effectively.	No literature was found relating to the guideline: The development of strategies to promote a positive, pleasant atmosphere during meetings and the duration of the project that will contribute to team members working more effectively.
Encouraging team members to work as a team during meetings that will limit the occurrence of unpleasantness amongst team members.	<ul style="list-style-type: none"> Thomas, W. (1995). When "Student Empowerment" Works Too Well: Adventures in Publishing by a Former High. Retrieved April 1, 2011 from: http://www.jstor.org/stable/820586
Evaluation of team members' work during meetings to make certain the required changes have been made before team members type their work.	No literature was found relating to the guideline: Evaluation of team members' work during meetings to make certain the required changes have been made before team members type their work.

Table 5.7: Available literature on identified principles (continued)

Guideline	Literature
Attending annual computer courses to improve team members' knowledge of computer programs.	<ul style="list-style-type: none"> Becker, H.J. (2000). <i>How exemplary computer-using teachers differ from other teachers: Implications for realizing the potential of computers in schools. Contemporary Issues in Technology and Teacher Education</i>. Retrieved April 4, 2011 from: http://www.editlib.org/f/10730
Creating opportunities for team members to learn new things with every edition that will improve the school newspaper.	<ul style="list-style-type: none"> Becker, H.J. (2000). <i>How exemplary computer-using teachers differ from other teachers: Implications for realizing the potential of computers in schools. Contemporary Issues in Technology and Teacher Education</i>. Retrieved April 4, 2011 from: http://www.editlib.org/f/10730
Providing sufficient opportunities for team members to learn more about themselves during meetings that will contribute to the development of interpersonal skills.	<ul style="list-style-type: none"> Dennis, J. (1998). <i>Prior review in the high school newspaper: Perceptions, practices and effects</i>. Retrieved April 1, 2011 from: http://www.gspa.uga.edu/Forms/dennis_joseph_g_200705_ma.pdf
Encouraging team members to develop their own unique writing style with every article they write that will improve the school newspaper with every edition.	<ul style="list-style-type: none"> Atwell, I.N. (1987). <i>In the Middle: Writing, Reading, and Learning with Adolescents</i>. Portsmouth, NH: Heinemann.
Encouraging team members to conduct interviews relating to their articles that will contribute to the development of their communication skills.	No literature was found relating to the guideline: Encouraging team members to conduct interviews relating to their articles that will contribute to the development of their communication skills.
Discussing possible career opportunities during meetings with team members that will create a passion for journalism and photography.	<ul style="list-style-type: none"> Gregory, M. & McLaughlin, W.J. (1951). <i>Teaching the Newspaper in Junior High Schools</i>. Retrieved April 3, 2011 from: http://www.jstor.org/stable/807875

The researcher had difficulties in finding any literature relating to some of the identified principles of this study. The conclusion is that 21 new principles have been identified in this study.

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