Constructing Safety in Scuba Diving:

A Discursive Psychology Study

By

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Abstract

Scuba diving has been around for years and has its origins in history many centuries ago. It has been widely explored and researched as a subject of scientific, medical, and recreational interest.   More recently, with the development of sport psychology, it has become the focus of a few social scientists.   This research is intended on making a contribution not only to such research in the field of sport psychology and scuba diving, but also that of discursive psychology.

This study was executed from a discursive position, using ideas and methods from discursive analysis and applying them to the concept of diving safety. An attempt was made to view discourse as talk, and as such analyze talk as that what is being said. While most research on diving safety focus on how panic and fear are inner entities that drive behaviour leading to accidents, injury and death, this research wanted to look at those inner states as ways of talk and how they are interactionally constructed in talk.

The context within which the diving course took place can be divided into three contexts, namely the classroom, the pool and the open water environment. Research was conducted within in the classroom and pool environment, and data consisted of voice recordings of natural conversations in the training context.

This research wants to offer alternative explanations in psychology and sport, through explicating what subjects are saying, relating their talk to their situations and actions, and showing how specific situations incite certain types of talk.   In conclusion, this was not only a study *using* naturalistic conversations, but also a study *of* conversations.

Keywords: Discursive psychology, discursive analysis, scuba diving, diving safety, sport psychology, discursive devices, action, rhetoric, sequencing, interactional talk, discourse.

Samevatting

Scuba duik is reeds vir baie jare in ons midde en vind sy oorsprong in geskiedenis van eeue gelede. Dit is 'n onderwerp wat wyd nagevors word in die wetenskaplike en mediese arena, sowel as vir rekreasie doeleindes. Dit het egter onlangs ook die belangstelling van 'n paar geesteswetenskaplikes geprikkel. Hierdie navorsing meen om 'n bydrae te maak tot sulke navorsing in die veld van sportsielkunde en scuba duik, en veral ook in "discursive" sielkunde.

Die studie is uitgevoer vanuit 'n "discursive" posisie, en het idees en metodes vanuit "discursive" analise geleen en toegepas op die konsep van duik veiligheid. Daar is gepoog om diskoers as gesprek te oorweeg, en dus gesprek te analiseer bloot as dit wat gesê word. Terwyl meeste navorsing oor duik veiligheid fokus op hoe paniek en vrees innerlike entiteite is wat gedrag dryf, en aanleiding gee tot ongelukke en beserings, wou hierdie navorsing na sulke entiteite kyk as maniere van praat en hoe hulle interaksioneel gekonstrueer word.

Die konteks waarin die duik kursus plaasgevind het kan verdeel word in drie kontekste, naamlik die klaskamer, swembad en oop water omgewing. Navorsing was uitgevoer tydens die klaskamer en swembad fase, en data het bestaan uit klankopnames van natuurlike gesprekke in die opleidingskonteks.

Hierdie navorsing wil graag alternatiewe verduidelikings in sielkunde en sport bied deur duidelik te maak wat deelnemers sê, en hul gesprek in verband te bring met hulle situasies en aksies. So kan gewys word hoe dat spesifieke situasies sekere tipes gesprek aanspoor. Ten slotte was hierdie dan nie net 'n studie gebaseer op naturalistiese gesprekke nie, maar ook 'n studie van gesprek.

Sleutelwoorde: "Discursive" sielkunde, "discursive" analise, scuba duik, duik veiligheid, sport sielkunde, "discursive" strategieë, aksie, retoriek, opeenvolging, interaksionele gesprek, diskoers.

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CHAPTER 1

INTRODUCTION

1.1   Orientation

The researcher welcomes you, the reader, to chapter 1 of an exploration into a tapestry of the world of scuba diving interwoven with discursive psychology. This chapter will guide you through the background of this study which brings together the motivation for the study, the question to be answered, the researcher's goal/s, the possible relevance this study holds for you and society at large, as well as the ethical considerations which formed the foundation for a sound research project. As an important point of departure, you will be introduced to existing research relevant to this study. Apart from such literature defining the gap that this study attempted to fill as an addition to psychological research, it also hopes to open up the world of scuba diving to the non-diver reader.

1.2   Problem

This research explored the concept of safety as an aspect of recreational scuba diving. The concept of diving safety has created considerable interest in medical, industrial, military, educational and sports circles. Particularly since the dangers of diving became apparent during the Second World War, when Cousteau and Gagnan succeeded in developing the first aqualung, the interest has spiralled into a science that, today, is offered in university and industrial courses and also in diving schools and clubs. The literature exploring diving from a human sciences perspective, however, is extremely limited with only two examples that could be found by the researcher (Pryba, 1985; Ward, 2002). The study conducted by Ward (2002) was the only known research to implement a qualitative methodology, yet neither of the studies explored the aspect of safety. This leaves diving safety qualitatively unexplored as a social matter. Pryba (1985:93) admittedly refers to the "…numerous shortcomings still existing in underwater research."

When exploring safety as a social concern, one finds that safety is taught to be very important when engaging in scuba diving and therefore great emphasis is placed on the concept during training. Yet seemingly few divers practice these safety rules and guidelines once their training is completed. This phenomenon is strongly supported by literature and statistics, showing that divers are prone to neglect their safety, sometimes resulting in diving accidents and even fatalities, and that safety should thus be an emphasis in research on the sport of diving (Smit, 1982; Edmonds, McKenzie & Thomas, 1992; Kayle, 1995).

With regards to newly trained divers, Divers Alert Network report that "the inexperienced group consistently has had the greatest number of fatalities" (Report on Decompression Illness and Diving Fatalities, 1999:79). There are approximately between 66 and 114 fatalities per year or 2 to 4 fatalities per 100 000 divers (Report on Decompression Illness and Diving Fatalities, 1999). Of the victims, 24 % were not diving with a "buddy" diver, which is against training agency guidelines and showing these divers' neglect of safety procedures.   In 1989 there were 678 decompression illness and gas embolism cases reported compared to 553 in 1988 - showing a steady annual increase in diving accidents (Bennett & Elliott, 1993).

As stated previously, this concern for divers' safety has been explored for many years, utilizing various methods in doing so. An aspect that, however, seems mostly unexplored in the field of scuba diving, is the use of language and the impact thereof on diving. It is the researcher's view that language informs our lives. It is not only a representation of our cognition, but is action orientated (Potter, 2003a). This means that our language, whether it is text or talk, constructs our lives and reality and not only reflects our thoughts, feelings, etc. Research on the topic of safety in the sport of diving has revealed an abundance of valuable information in the field, yet no research has been done on the role that language plays in constructing the concept of safety, and how that translates into diving safely. Safety is a key concept in the sport of diving especially during the training phases, and therefore a lot of talk is done concerning safety. The researcher deemed it a valuable addition

to existing research to look at diving and safety, not only from a social and psychological perspective, but more specifically as a discursive object.

In the literature that could be found on the use of language in the field of diving, language was referred to as a reflection of our perceptions, rather than a means of constructing our interactions. Such an example can be found in literature concerning handicapped divers (Robinson & Fox, 1987). Divers are informed to refer to divers with disabilities in a considerate manner, and to use the correct terminology when reference is made to their disabilities. If one could use the research on handicapped divers as an example to illustrate how that research could be viewed discursively, the question would be focused on what is constructed between a disabled and a non-disabled diver when different kinds of language is used. In this research, the researcher believes that safety, the way it is constructed and what conversations about it constructs, should be carefully considered. In doing so it will enable the diving community to look at safety from a preventative vantage point, i.e. how we create the concept in our conversations and the impact our conversations have on the safety of divers. This research thus argues for an examination of the interactional nature of diving safety.

In light of the above it becomes clear that the need for more research on the topic of diving safety still exists. In addition, research on diving safety has never before been viewed as a discursive object, which renders the gap in research in this field especially wide.

1.3   Question

How is the concept of safety discursively constructed, or not constructed, in the sport of scuba diving?

1.4   Literature

This section consists of an overview of literature relevant to this study, specifically regarding safety as the subject. For the reader's convenience,

literature is divided into material that originates from the field of psychology, and material that originates from the field of diving.

1.4.1   Research In The Field Of Psychology

Following is an elaboration on literature that is relevant to this study's focus on the concept of safety. This section will focus on literature that concerns the field of psychology. The two relevant schools in psychology that will be discussed are sport psychology and industrial psychology.

Sport Psychology

Research in the field of psychology that concerns sport can be easily found, yet very few of these works look at sport from a post-modern perspective using discursive psychology as their framework. In fact there are a mere five studies known to the researcher that have been conducted using a discursive framework, including those of Jimerson (2001), Locke (2001), Locke (2003), Faulkner & Findlay (2002) and Findlay & Faulkner (2003).

Research in the field of psychology concerning scuba diving specifically, is extremely limited, with the research of Wojciech Pryba (1985) and Edmund Ward (2002) being the only known sources to the researcher after an extended search. The research of Pryba (1985) concerns the relationship between anxiety and field dependency (dependency on external circumstances over which they have little control) in scuba divers. The research was done quantitatively, covering themes such as the field approach, sense of identity, defense mechanisms and control, leaving the question that this research project posed unanswered.

The most relevant study, and the only author to integrate the sport of diving with a post-modern perspective for the purpose of a study in psychology, is that of Edmund H. Ward (2002). His study presents a narrative exploration of the potential offered by scuba diving as a therapeutic wilderness adventure context bridging deaf and hearing experience. This study utilized social

constructionism and a narrative perspective as an epistemological lens. The study of Ward (2002) showed a symmetry to the current study, in that it illustrated in a similar way how psychology is constructed in the world of diving (which is discussed in section 1.4.3). It is, however, different in the way it focused on participants and data. Ward's research reflected on the lived experience of the participants' participation in a scuba diving course, and the accompanying personal narratives and metaphors. Although the focus and topic of Ward's research differed, it is a piece of work that this research could align itself with. It provided a dialogical space for the voices of the participants and, even though the different researchers focussed on listening differently to different aspects and in different contextual frames, the epistemologies go hand-in-hand.

Industrial Psychology

Literature with regards to safety in the field of industrial psychology is mainly concerned with the aspect of 'occupational health and safety', giving critical appraisals of the status and developments in the field (Akinnusi, 1996). Safety is seen as a practical problem that calls for practical solutions. Amongst the factors which influence safety are: the safety climate, personal characteristics, workplace location and conditions, and occupation groups (Barnes, 1990; Maiti & Bhattacherjee, 2001). Occupational stress and the sources thereof seem to be of the greatest importance (Gandham, 1995). Other sources focus on specific interventions in examining and improving safety in the work environment. Some examples are the behaviour-based safety (BBS) programme for mining companies, as well as the investigation of work circumstances of flight engineers and the effects thereof on in-flight safety (Lanham, 2002; Visser & Van Staden, 1992).

With regards to scuba diving, the risk management framework has recently been applied to the field of scuba diving in Australia. Wilks & Davis (2000) examined risk management strategies that, through prioritizing main areas of exposure, may reduce or prevent the occurrence of future problems in diving. They view risk management as a useful framework in which to understand

and respond to tourist health requirements, and so it is seen to be a recognized/able business principle.

With regards to this study's focus on language and safety, one specific article in the school of industrial psychology has assessed the contribution that linguists might make to risk management and public safety (Myers, n.d.). Myers (n.d.) goes beyond the traditional applications of applied linguistics, to show what a study of interaction might be able to contribute to risk consultation. The scope of what such an investigation, in which language is the central issue, contributed is far beyond the scope of this report, yet it indicated to the researcher the value that linguistic (and also discursive) approaches might have for fields involving safety.

Consequently, safety is a broad and well-researched topic in industrial psychology. With regards to this research it is, however, researched in a very different context, which makes its relevance for this study relatively limited.

1.4.2 Research In The Field Of Diving

Taking into account that scuba diving is rarely considered to be a matter of psychological importance, it was deemed necessary to include further material regarding diving so as to provide a comprehensive and informative review of literature on the topic to the reader. A broad overview of such literature seems to inform us on the following topics: diving equipment, skills training, diving physics and the physiology of the diver, the diving environment, underwater rescue, diving safety, and what the future of diving safety holds. As regards both diving and psychology, emphasis is later placed in a separate section (1.4.3) on how these two fields meet.

Equipment

Research on the equipment used in scuba diving highlights the rather incredible momentum with which the diving industry has developed from

breath hold diving with a primitive mask, fins and snorkel to the extended dives with sophisticated life-support systems in waters throughout the world.

For the reader's purpose, a brief explanation of the basic equipment used in scuba diving, is provided. Self-contained underwater breathing apparatus (scuba) is the basic life-support system for the recreational and scientific diver. Open-circuit scuba enables the diver to remove high-pressure gas from a cylinder through a regulator, which reduces the breathable gas to ambient pressure and moves it into the lungs on inhalation and into the water upon exhalation. The exhaled gas forms into bubbles and creates noise (Bennett et al., 1993).

Modern, reliable equipment can promote safe diving. There is no doubt that some of the new equipment makes diving easier and consequently more fun. Although, using some of the new equipment without proper training can be dangerous. To give a complete outline of diving equipment would fill an entire book, yet most research covers a few basic principles of equipment safety (Bennett et al., 1993; Ketels & McDowell, 1979; Venter, 1995; Dueker, 1978). A diving suit serves the purpose of heat maintenance, protection from abrasions, and a source of buoyancy. To see effectively underwater, the diver needs a mask. Fins and a snorkel are also essential for diving. A functional knife should be available to cut entanglements. Divers also need an accurate depth and pressure gauge, as well as a diving watch to help prevent decompression sickness. Divers should use a standard regulator and not try to modify it. Fatal accidents have been attributed to non-standard, poorly maintained regulators (Dueker, 1978). Equipment most closely linked to safety is buoyancy compensators and weight systems. During emergencies buoyancy compensators should be inflated by the diver and weights dumped.

Skills

Most literature on scuba diving skills include checking of equipment before diving, pre-dive briefing, entering the water, descending to depth and exiting

safely (Bennett et al., 1993; Venter, 1995; Ketels et al., 1979). It also covers safety skills such as equalizing the ears, clearing the mask and regulator underwater, buoyancy control, buddy breathing, emergency swimming ascent, and buoyant ascent. These skills are mostly taught with safe diving in mind. Diving with modern breathing equipment may be deceptive because of the ease with which untrained persons can perform safely when under ideal conditions. Their attempts might be compared to flying small modern aircraft, which are designed in such a way that they almost fly themselves. The operator is safe until an emergency arises. It is then that knowledge, skill, and experience may mean the difference between survival and a serious accident. It is generally the message that scuba should not be played with, nor should it be handled by anyone not trained in its use. Ignorance, carelessness, and any attitude short of a healthy respect for scuba can seriously compromise the scuba diver's safety (Venter, 1995; Dick & Sisman, 1986; Ketels et al., 1979).

Physics and Physiology

An understanding of the physics and physiology of diving makes it possible to avoid many of its dangers and promote safe diving. According to Venter (1995), a diver who has some knowledge of Boyle's Law, Henry's Law and of the physiology of the lungs and circulatory system, is less likely to have an air embolism or a case of the bends (Decompression Illness). In addition to these there are also Dalton's Law and Gay-Lussac's Law, which are important in understanding the behaviour of gases. Subject matter often covered with regards to physics includes pressure and the gas laws, temperature, density and viscosity, energy and optics (Edmonds et al., 1992; McKenzie & Thomas, 1992).

In addition to describing physical forces that confront a diver, literature also considers the *effect* of these forces, especially the surroundings of depth and the accompanying pressure, and the way certain parts of the body react to it (Dueker, 1978; Edmonds et al., 1992; Ketels et al., 1979; Young, 1974; Smit, 1982). Parts of the body containing hollow spaces must at all times have free

access to air. When a differential of pressure occurs over these spaces, pain or injury (barotrauma) may occur. Physiological effects on the ears, sinuses, lungs and airways are described as direct effects of pressure. Literature tends to focus on diving injuries such as air embolism, mediastinal and subcutaneous emphysema, and pneumothorax that are due to these effects. Conditions caused by the indirect effects of pressure are represented in literature as Nitrogen narcosis and Decompression Illness (Kayle, 1995; Bennett et al., 1993).

Diving Environment

The amount of literature on oceanic life is prolific. Many authors inform divers on the winds, waves and currents of the sea, explaining how these factors influence diving activity and safety (Young, 1974; Edmonds et al., 1992; Ketels et al., 1979). Others give detailed information on every imaginable form of sea life, from plant life to marine mammals (Ketels et al., 1979; Sammon, 1995; Venter, 1995). Of great importance to most divers, especially where safety is concerned, is literature on hazardous marine life (Bennett et al., 1993; Bookspan, 1995; Edmonds et al., 1992; Kayle, 1995). Divers venture into an environment that is very different from the one they live in, and this provides for dangerous encounters with anything from a poisonous sea snake to the unpredictable shark. Yet, not all literature on the underwater environment is focused on injury management. In fact, most authors emphasize the splendour of the coral reefs, and inform divers on how to coexist with them in an effort to conserve the beauty of the most colourful and diverse ecosystem on earth.

Rescue

In a study by Lou Fead as cited in Pierce (1985), over 60 % of divers had rescued a fellow diver, almost 60 % had shared air, almost 20 % had given air mouth-to-mouth, and almost 10 % had used cardiopulmonary resuscitation (CPR). As a diver you depend on other divers to help you in emergencies and, if necessary, to save your life. It is therefore not surprising to find that

almost all literature on diving includes at least a chapter on scuba rescue and first aid (Kayle, 1993; Edmonds et al., 1992; Ketels et al., 1979; Young, 1974; Pierce, 1985; Dick et al., 1986; Bookspan, 1995; Dueker, 1978; Lippmann & Bugg, 1999).

Diving emergencies seem to arise from lost/trapped divers, gear problems, loss of air supply, and physiological problems such as respiratory failure. Emergencies that divers may come into contact with mostly comprises of barotrauma, oxygen/carbon monoxide toxicity, stings and bites, and Decompression Illness (Lippmann et al., 1999; Venter, 1995). Pierce (1985) gives guidelines on the prevention of accidents, and also gives helpful information on the process from preparing for a rescue up to transport to a hospital or hyperbaric chamber.

Safety

Literature on diving safety is almost synonymous with mortality rates and a call for increased safety (Smit, 1982; Edmonds et al., 1992). Smit (1982) for instance, indicates fatality figures similar to those given in section 1, and additionally states that these records are usually poorly kept, as true figures are often not available being listed simply as "drownings" in official records. According to Smit, the available count and per capita figures suggest the highest mortality rate of any sport. Furthermore, safety is closely linked with fitness and health. Diving is a demanding activity that calls for a healthy body, as it requires a degree of physical exertion comparable to that put forth in running. As Ketels et al. (1979), Edmonds et al. (1992), Venter (1995) and Bennett et al. (1993) seem to agree, only when you are in good physical shape can you handle yourself properly and safely as a diver without being a hazard to yourself and others. Young (1974) emphasizes the importance of careful planning before diving. This is based on a good understanding of the environment, equipment, and the limitation of the individual. Appropriate equipment, entry point, depth, bottom time, objective, exit and over-all safety provide an outline for proper dive planning.

Authors such as Young (1974), Venter (1995), and Dueker (1978), inform us that diving is fun, but that in the long run it will continue to be fun only if it is safe. They firmly link safety with training, in emphasizing that any responsible instructor should stress safety as his prime interest, with diving being the secondary consideration.   Venter (1995) and Dueker (1978) go on to emphasize the importance of the identification of physiological defects that would make diving dangerous. Dueker (1978), Ketels (1979), Venter (1995) and Bennett et al. (1993) all feel that good equipment, a suitable dive partner, and a respect and knowledge of the conditions where you dive, are all essential to safe diving. Divers are prompted to be prepared for emergencies and to know the location of the nearest recompression chamber. Finally, divers are urged not to touch or disturb unknown underwater creatures.

It is easy to see that diving safety is not just another topic to be addressed when it comes to training, but that it encompasses every topic concerning diving. When any topic is considered, it is considered for the purpose of preserving the diver's safety, whether this means the maintenance of equipment or techniques for rescuing a diver in an emergency. Safety starts with training and continues to be the main concern throughout any diver's sporting career.

Future Directions in Diving Safety

Throughout the research that was examined in this section, the need to still increase diving safety seemed to be a prominent and sought after goal. With specific reference to scuba training, Telford & Davidson in Wilks, Knight & Lippmann (1993) note that providers of diving services will become more "professional" through necessity. This necessity will arise directly from the need to avoid legal penalties for accidents and injuries, and also the need to deliver a quality product or service to maintain market share.

The first factor that seems to be of importance in the future prevention of accidents is screening divers for medical conditions that may predispose them to a diving injury. Medical examinations thus seem to be not only an

important consideration, but it seems that the text implies that these examinations have been mostly absent in the past (Wilks et al., 1993).

The amount of dives is also seen as a contributing factor with regards to diving safety.   A study done by Dr Douglas Walker showed that very inexperienced divers, mostly with less than five dives, provide for approximately 42% of diving fatalities. This figure is supported by the Report on Decompression Illness and Diving Fatalities (1999), which states that 41 % of all 1997 diving fatalities involved divers with 20 or fewer dives. If one includes those divers who have not been in the water for 12 months or more, the figure rises to approximately 48% of the deaths being in people who have hardly had time to learn to dive safely, or is out of practice (Wilks et al., 1993). The implication of studies like these on the future of diving would be longer entry-level training, or alternatively the completion of additional supervised dives to obtain full open water status.

With regards to diver training, Wilks et al. (1993) found that divers who have died, died with their weight belts on, or their buoyancy compensators not inflated.   This together with a large portion of divers experiencing decompression accidents, emphasizes the need for changes to some current teaching by, for example, better educating divers in the use of dive tables, safe ascent procedures etc. In the same regard, Wilks et al. (1993) feel that diver rescue should be taught to every diver as part of his or her initial course as a successful rescue saves a life[1].

Further considerations are buddy pairs, as well as divemaster and instructor training. Approximately 62% of fatalities involved divers who were either diving alone or had separated from their buddies before the fatal accident. With regards to divemaster and instructor training, divemaster status can be achieved at the age of 18 years after only 20 dives. It is also possible to enter an instructor-training program with a minimum of 100 logged dives (PADI,

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[1] The rescue course is currently taught as a third level course, after the open water and advanced courses.

2002). It is in Wilks et al. (1993), and most divers generally, the opinion that this is quite inadequate underwater experience.

Currently then, the road to safety seems to be built with medical intervention, longer and more extensive training that provides for well-trained divers who understand the need for practicing rarely used skills, as well as more experienced teachers. It seems that knowledge provided throughout the training period is of the greatest importance, and that the individual's responsibility for safe diving is seen to be dependent on his/her attained knowledge. "Diving safety is the individual diver's responsibility, but unless the diver has wide-ranging knowledge, which must come with the entry level…he or she cannot choose wisely" (Wilks et al., 1993:202).

1.4.3 Where Scuba Diving And Psychology Meet

Contrary to what many psychologists sometimes assume, literature on diving has formed a unique construction of psychological matters in diving. Matters that can be seen as "psychological" in nature are indeed stressed as very important to the diver's safety. Dueker (1978:2) for example notes that "the instructor's evaluation of a student's emotional stability is much more important than his/her physical condition." Considerations include past experience, expectations, fears, and such. Reference is made most frequently to aspects of fear and panic (Dueker, 1978; Ketels et al., 1979). Edmonds et al. (1992) note that 39% of deaths in scuba diving were associated with panic, and also associate anxiety and dementia with diving.

Authors such as Venter (1995) acknowledge the less obvious nature of psychological aspects, and note the importance of the diver's psychological make-up. The emotionally suitable diver is seen as stable, calm and collected. Ketels et al. (1979) state that the diver is most capable of evaluating him/herself and that this requires honesty and willingness to admit to fears or uncertainty, whereas Edmonds et al. (1992) assume that the diving instructor is best able to evaluate the diver. It seems that these authors are mostly concerned with thoughts, attitudes and emotional states that lead

divers to unsafe diving practice. The researcher wants to contrast this indeed valuable view with a different one where, instead of considering such concepts as internal cognitions and states, one may discover how these concepts are created and used in language.

Talking Causes: Panic and Anxiety

When psychological matters are addressed in diving literature, it is noticeable how they are discussed as the causes of accidents and deaths, and therefore compromising factors with regards to safety. Dueker (1978:20) describes panic as "a state of abject terror" and holds that reactions to panic cause many diving accidents. Under the heading of "Host factors for in-water accidents", Bennett et al. (1993) also demonstrate how panic can develop into an underwater fatality. They describe panic as "a loss of mental control which otherwise might cope with a potentially hazardous situation" (p.244). They also agree that panic is causal of accidents, stating that "in sports diving, the concept of panic as a significant cause of the fatal outcome of diving accidents is supported by the condition of the bodies recovered", and note that these observations point to the lack of a logical response to a perceived danger (Bennett et al., 1993:244).

It is interesting to note how psychological states such as panic and anxiety are seen to be the "real" cause of accidents. Edmonds et al. (1992) for example state that drowning obscures these pathologies as the cause of death, and is ignored because they have no demonstrable signs at autopsy. Furthermore, Raglin (1998) states that the precipitating factors in most fatalities remain unknown, but that many have been attributed to psychological variables, in particular anxiety and panic.

Edmonds et al. (1992) report under the heading of "Psychological Factors", that in at least 25% of cases (deaths), the diver had a pre-existing disease (referring to states such as panic), which should have excluded him/her from diving. Dick et al. (1986) agree that diving cannot be recommended for people with a high level of anxiety. It is seen here how panic and anxiety is

described as a "disease", seemingly constructing it as a medical condition. Lippmann et al. (1999) for example list anxiety under "Signs and Symptoms" together with aches, laceration and bleeding. In this account, the context is not so much psychological as it is medical in nature. Ketels et al. (1979) illustratively contrast judging your own mental health with it being judged by a doctor (compared to a psychologist or the likes). It is described as a condition that the person already possesses, and seems to be a fixed characteristic that excludes one from diving, rather than something that can be changed.

Furthermore, panic and anxiety is constructed as being inside the person. Ketels et al. (1979:26) describe it as "a state of mind", emphasizing how it is of an internal, cognitive origin, contributing to the construction of anxiety being a long-term abnormality. In this regard, Young (1974:241) also states that coping with anxiety involves "a capacity for *normal* fear reactions without a tendency to panic".

The literature seem to view psychological factors as a negative influence on the safety of divers, and also view it as a predisposing factor in diving accidents. In this regard Edmonds et al. (1992:7) report that: "The diseases either killed the diver or predisposed to diving accidents in the vast majority of these cases". Panic and anxiety thus seem to compromise the diver's ability, and has the potential to control and debilitate divers. Dueker (197821) for example states that: "A panicked diver cannot save himself", and "Panic kills quickly and must not be ignored".

Panic is described as having far-reaching effects that can be fatal to the diver. Dick et al. (1986) indicate that, "panic produces physiological changes which can have severe consequences, and is probably the cause of most accidents in underwater diving". The "always compromised" diver's condition seems to have the potential to also endanger those around him or her. Dick (1986) notes that some people are more prone to fears making them more liable to panic, and so become a danger to others.

Edmonds et al. (1992) go on to emphasize panic and anxiety as the main psychological causes of injury, reporting a 40-60% incidence of panic related to deaths. They describe panic as a "psychological stress reaction of extreme anxiety, characterised by frenzied and irrational behaviour" and "it is an unhelpful response which reduces the chance of survival" (p.7). Divers with a higher proneness to anxiety are seen to continue with diving because of peer pressure, ego challenge or other personal reasons. Once again anxiety is not only the cause of accidents, but is a compromising factor that resides within the person even before diving has started.

Kayle (1994) discusses gender under the heading of "Psychological factors" and contends that gender can be either the cause of safer or more dangerous diving. He holds that on the one hand women divers can be extremely safe divers, lacking the male macho need to demonstrate strength and ability, and dive efficiently, intelligent and well. On the other hand there are those that seem fragile and, staunched in their belief in male chivalry, they encourage their male partners to do everything for them. Should a problem arise they are then incapable of providing an intelligent solution, becoming a liability to their buddies. Moreover, the idea that gender (specifically being female) has an impact on diving accidents is confirmed by diving accident report forms (such as the one found in Edmonds et al., 1992). These forms have a section devoted specifically to women, but inquire more about medical conditions than psychological factors.

With regards to the *Diving Accident Report Form*, it was noticed that no opportunity is given to report signs or experiences of panic and anxiety. In sections 5, 8 and 10 all enquire only into medical conditions such as decompression illness (section 5), vomiting (section 8), and headache (section 10) at the time of the dive. One thus notices a discrepancy between the emphasis that is placed on psychological factors in literature and the lack thereof in report forms used in diving practices.

Retrospectively though, it seems that diving also holds a stake in the cause of psychological disorders. Edmonds et al. (1992) indicate that it is believed that

divers suffer an increased incidence of dementia, which he describes as a deterioration of intellectual capacity and memory, which is common in the elderly and has a variety of causes.

The Safe and Successful Diver

According to Edmonds et al. (1992:1) successful divers "…tend not to be anxiety prone; they are self-sufficient, intelligent and emotionally stable" and "this may be helped by their tendency to use 'denial', a mechanism by which they refuse to consciously acknowledge the hazards which may confront them". These divers are also believed to possess a higher tolerance to stress, which allows them to continue to function during difficulties. Bennett et al. (1993) feel that a diver (as well as other members of the team) who is well trained is better protected against panic, and will therefore be better equipped in an emergency procedure.

Egstrom (1997) reports that the safe and effective diver is a psychologically fit one. He describes this as being able to think and solve problems while relaxing and enjoying underwater experiences. He adds that the diver should also be concerned about overlearning critical skills and thus performing skills with little or no conscious effort.

Ketels et al. (1979) holds that mental fitness is the key to safe diving. They describe the psychologically fit diver as one who possesses a keen awareness of the world about him or her, having almost a sixth sense of what is happening or about to happen. The diver should be confident but not bull-headed. They go on to contrast a "devil-may-care' personality and being a "hotshot" with a responsible, safe diver.

Dueker (1978) places much emphasis on the instructor's responsibility for students' attitudes toward diving. He means that heroic sea stories and over-emphasis on danger do not build self-confidence, and that the instructor who enjoys diving, and does so with grace and calmness, serves a far more worthwhile model for impressionable students.

Pierce (1985) gives guidelines on how to distinguish the diver who is not mentally ready from those who are. He notes that the reluctant diver may hesitate during diving preparations, and may invent a multitude of artificial reasons for not going into the water. Paradoxically, the hesitant (and assumingly unsuccessful) diver who claims he should not dive because of a cold, is described by Pierce (1985) as the diver who has probably prevented accidents caused by a diver over-extending himself.

Fear of Fear or Fear of Humiliation

"Why continue a recreational activity which causes apprehension?" (Edmonds et al., 1992:1). This question posed by Edmonds et al. (1992), seemed a natural one to follow in the light of the above. Why don't divers simply refrain from diving if the activity causes them apprehension?

After carefully reading the wealth of literature, it seems that the answer might be found in what Edmonds et al. (1992) refer to as peer pressure, ego challenge and personal reasons in section 4.3.1. Pierce (1985) points to the notion that divers will seldom admit fear. The fact that this author, amongst others, find it necessary to instruct other divers not to ever humiliate a person who finds an excuse not to dive, might indicate that divers display a greater fear of being humiliated (and it seems they run this risk), than a fear of the possible devastating effects as discussed in the sections above.

Dueker (1978:22) adds to Pierce's view by emphasizing that "students should not be made to feel that anxiety is abnormal or a sign of weakness" and they "should feel free to discuss their anxieties about diving without threat of ridicule". Furthermore, Young (1974) agrees that individuals who coerce, shame, or ridicule another person into involuntarily performing a scuba dive are inducing him or her to risk self-destruction needlessly. However admirable the message to other divers to not shame apprehensive divers, it remains difficult to ignore that these messages seem to originate from a position where such divers are indeed humiliated and ridiculed.

1.5   Diving Definitions

Following is a brief outline of concepts specific to scuba diving that the reader might come across when reading this report, and might need further clarification of.

Buddy – A companion diver who remains your partner for an entire dive, and who should remain within a short swimming distance from you.

Buoyancy Compensator (BC) – As the term indicates, this jacket compensates for changes of buoyancy by inflating it orally or manually with air from the scuba cylinder or alternatively deflating it by means of an air-dumping valve, which allows for quick release of air in the BC.

Buoyancy Control – This term indicates the ability to maintain neutral buoyancy to provide a seeming weightlessness. Common causes of buoyancy problems include a current pushing a diver either up or down, being either over- or under-weighted, over-inflation of the buoyancy compensator, or lack of the actual skill.

Decompression Illness (DCI) – Also referred to as Decompression Sickness or the bends. A syndrome caused by bubbles of inert gas (Nitrogen) forming in the tissues during or after ascent from a dive. Symptoms manifest in the form of muscle and joint pain, fatigue, skin symptoms (itching, rash), and can include the central nervous system, respiratory system or circulatory system.

Divemaster – This is a person qualified to organize and conduct dives for certified divers, and will therefore lead the dive.

Dive Tables – These tables were designed to safely plan repetitive dives (consecutive dives on one day), i.e. the maximum time that can be spent at the bottom taking into account the time and depth of previous dives.

Equalizing/Clearing the ears – This is done by holding the nose between two fingers and blowing outwards, or by simply swallowing. A gentle popping is felt in the head as the pressure equalises. The increased pressure of water on the eardrum causes this pressure as the diver descends.

Hyperbaric/Recompression Chamber – These chambers are used in the event of decompression injuries (DCI). It is a metal tank that can be pressurized, and can hold a diver and sometimes an attendant as well. A patient must stay in it, at depth, for several hours, until all symptoms of the bends disappear.

Nitrogen Narcosis – When breathed at sufficient pressure, nitrogen in air has an intoxicating effect on the diver. The subjective symptoms are in general pleasant, a feeling of relaxation and wellbeing, coupled with a sense of detachment from reality.

Regulator/Demand Valve (DV) – A regulator is a mechanical system that supplies air to the diver from the high-pressure cylinder, as it is needed (therefore also known as a demand valve). A regulator consists of a mouthpiece, a hose, and two pressure-reducing units (called stages).

SCUBA – Self-contained underwater breathing apparatus (scuba) is the basic life-support system for the recreational and scientific diver. Open-circuit scuba enables the diver to remove high-pressure gas from a cylinder through a regulator, which reduces the breathable gas to ambient pressure and moves it into the lungs on inhalation and into the water upon exhalation. The exhaled gas forms into bubbles and creates noise.

1.6   Goals

Following is a clarification of both the general and specific goals of this study.
1.6.1   General goal

It was the goal of this research to determine which discursive resources instructors and scuba divers use during scuba training, whether in the classroom, pool or open water environment, in constructing the concept of safety.

1.6.2 Specific goals

- Describe the conceptual framework of discursive psychology, as a means of exploring the construction of safety.

- Describe the research methodology of this research project.

- Conduct a research project in the field of scuba diving training.

- Write a research report on the results and recommendations of the research project.

1.7   Relevance

This research hopes to contribute to the field of psychology by providing an example of a unique method for collecting, managing and analyzing naturalistic materials. In addition it hopes to contribute to discourse work in particular, by providing a clear and concise example of such work. Even though the primary focus is on the detailed analysis of interaction, the broader ambition is to provide a novel perspective on almost the full range of psychological phenomena *wherever* they occur – even in a training setting for scuba divers. This research thus represents a rare and rigorous way of directly studying human social practices.

Psychological matters are pervasive in all kinds of discourse and social interaction, and this research aims to show just that – that psychology is not only present in the consultation room. The researcher moved beyond the clinical setting, to see how people manage in everyday settings, with topics that are sometimes seen as exclusive to the therapy context. What we wish

to construct as psychological aspects are in fact everywhere. In much research, therapy is the starting point and the focus is how therapy gets done. However, this research attempted to illustrate that conversational interaction is not worthy to be researched only when it occurs in the therapeutic setting, and that people negotiate and construct psychological notions and problems throughout their lives.

This research would want to offer alternative explanations in psychology and sport, through explicating what subjects are saying, relating their talk to their situations and actions, and showing how specific situations incite certain types of talk. This is not only a study *using* naturalistic conversations, but also a study *of* conversations.

The relevance of this study then goes beyond that of psychology. Through the use of an interactionally based methodology, the virtues for sport (and specifically scuba diving) and sport psychology are invaluable. It hopes to give an alternative perspective on the addressed topics (such as safety) as possessing a negotiable quality. Traditional research into sport, and specifically diving, has mainly focused on attitudes and behaviours in sport practices. The emphasis is placed upon individual cognitive appraisals (e.g., Pryba, 1985), overlooking the interactive context in which sport is practiced. This research thus inevitably challenged some key assumptions in most research.

Finally, this research intends on giving something back to the community that inspired the research. The researcher believes that studying diving and training as it occurs in its natural setting and everyday life, could show how it may be redefined as an interactional practice, rather than an individual behaviour. The diving community could benefit from discovering interactional structures and the organization thereof in training, and gain awareness of how their use of various discursive devices shapes their safety. The researcher hopes to introduce to this community a new take on behaviour, emotions and various other constructs in examining how they are constructed, and by doing

so giving them the opportunity of considering the role it plays in scuba diving practices.

In conclusion, this research wishes to make a contribution to the scientific community by means of a different approach to psychology, sport psychology, sport and scuba diving, thereby opening up new avenues of research. Especially in the field of sport, it is hoped that this approach can provide alternative means and methods to psychologists when intervening in this field. In addition, it also takes into account the general community, showing to each and every individual that they are part of the construction of psychology, and that psychology is present in everyday practical settings. The excitement of this work originated from being able to utilize the possibilities of new recording technology with the power of the analytic approach to make insightful and novel observations about people living their lives.

1.8   Ethics

All the participants were fully informed as to their rights and responsibilities with regards to the scuba diver course, as well as to the nature and content of the course and the possible physical and psychological risks that the training could entail. This was done before the training commenced.

The hazardous nature of diving and diving related activities was spelt out in the standard PADI indemnity form, which was read to, discussed with and signed by all participants. This was done so as to ensure that every participant fully understood what the course entailed, what the potential risks were to him/her as well as to what was expected of them. After a participant had been fully informed he/she was free to choose whether or not he/she wished to take part in the training. Participants took part in training of their own free will.

Participants were also fully informed as to the nature and intentions of the research project. Here too, their participation was purely voluntary and of their own free will. The researcher obtained permission from all participants,

the participating instructor, and the diving school, to use the gathered information for academic purposes and indemnified the University of Pretoria from claims to injury. These ethical procedures were undertaken by all the parties involved in the form of a written consent, undersigned by the participants (See Appendix A for examples of these documents). The researcher also ensured confidentiality and anonymity to all the participants with regards to all information and activities regarding the research project. This included an agreement of confidentiality with the sound engineer concerned, regarding recorded materials (also included in Appendix A). To further ensure and preserve confidentiality, the researcher did her own transcription. The digitalized recording device allows for disguising of identity with relatively little loss of vocal information.

Participants agreed to participate in the project only after it had been discussed with them both as a group and individually. Participants were also expressly informed of their right to withdraw from the training or study at any stage.

The researcher felt competent in ensuring the ethical course of events. The researcher has been trained as a scuba diver and has been diving for almost three years, performing more than a hundred dives. Together with the instructor who is trained to deal with possible difficulties that may occur during training, the researcher felt confident that this research project would be executed in such a way that all matters would be addressed by the researcher and instructor in a competent and ethically correct manner.

CHAPTER 2

RESEARCH POSITION

2.1   Introduction

This research will be executed from a position called discursive psychology. This entails that the researcher will use ideas and methods from discursive analysis and apply them to the concept of diving safety.

Even though this research position still seems novel to many in the field, discursive psychology has been around for nearly two decades. The first analytic article in a psychology journal appeared in 1985 by Litton & Potter, and the first major published statement was the book "Discourse and Social Psychology" by Potter & Wetherell (1987). They took various theoretical topics and reworked them in discourse analytic terms, studying their practical and interactional role in conversation. At the same time the rhetorical approach to psychology emerged, and by the early 1990's they blurred together to form discursive psychology (Potter, 2003b).

Following is a brief outline of the field of discourse psychology, so as to explicate the researcher's position within this field. The study of discourse is predominantly situated in two arenas, with a distinction made between discourse analysis and discursive analysis. Much confusion exists amongst researchers as to the differentiation between the two and where the boundary lies, therefore the importance for the researcher to clearly define her point of departure. Literature on both discourse and discursive work make the distinction a difficult one with overlapping terminology used from both sides. When adhering to titles of articles and books, there seem to be little if any difference at all. A careful investigation into the field however, brings about a distinction between discourse and discursive material.

As has already been stated, the research position of this study will be that of discursive psychology, a theoretical framework developed by researchers such as Jonathan Potter, Derek Edwards and Margaret Wetherell. As with discourse psychology (and analysis) the focus remains with discourse. Thus

it is not what is studied that differs, but rather how it is studied. Discourse psychology, stemming mostly from the work of Foucault, views discourse as a narrative informing the lives of an entire society. On the other hand, discursive research such as this attempts to view discourse as talk, and as such analyzes talk as that what is being said, without considering how it is part of a larger discourse, as it is viewed in discourse psychology. This is then a study rooted in a discursive psychology framework, using discursive analysis as its method.

It is important to note that when reference is made to discourse in the field of discursive psychology, it is meant as talk or text. In this particular study the focus is only on talk. The term "talk" is used specifically to emphasize the primacy of that which is being studied – what is said and how it is said (e.g., intonation, pauses, delays, etc.). In Figure 1 below, it is shown how the discursive psychology school studies discourse as talk or text, as opposed to discourse psychology.

Figure 1:

DISCURSIVE PSYCHOLOGY

| Potter, Edwards & Wetherell |

DISCOURSE PSYCHOLOGY

| Foucault |

Discourse

| In Talk and Text |

Focus is on interpersonal and interactional talk, which refer to spoken words and how they are spoken, e.g. intonation, pauses, etc. The focus is then on the micro-level of interaction.

Focus is on wider cultural narratives that contextualize conversations, thus focussing on the macro-level of discourse located in wider social structures, which inform conversations.

(Lupton in Powers, 2001)

Taken the alternative stance that an approach like this one takes to psychology, it was deemed a valuable and necessary effort to display this theory of discourse in the form of its essential principles; being situated, action orientated, constructed and constructive. Yet, it is important to note that in practice these principles are seamlessly blended together.

2.2   Discourse is Situated

When working from the discursive position, it is held that constructs are always situated.   This implies that the researcher will always interpret discourse or talk/text from the context in which it is made relevant (Abell & Stokoe, 2001). This also means that psychological matters, be it safety, fear or panic, will be understood as being introduced, defined and made relevant to the business of the diving setting (Edwards & Potter, 2001).

The researcher will also consider where what is talked about, actually occurs. When one looks at the interview situation, we find people talking about how they might act or might think in a generic or make-believe situation in which they have no stake or interest. It is clear how this method separates the participants from their contexts (Potter & Edwards, 1999).   However, an interview is not just a method in which talk occur. Talk is situated and thus when participants engage in talk in the context of an interview, they "do" interview talk. The situation provides a certain criterion for how to speak, and ends up being the reported result.   In other words, the results are not discovered in the research, but defined into it (Potter et al., 1999).

The example of the interview is not to discount the use of this methodology, but to illustrate how different notions play a role in interaction.   Whilst methods such as the interview has greatly influenced and contributed to research, it will be argued that the use of individual methodologies has prevented an examination of the interactional nature of psychology, sport and scuba diving (Wiggins, Potter & Wildsmith, 2004).   Thus, working from a discursive perspective will allow a movement from seeing dive safety as a

decontextualized, desocialized individual activity, to a situated, interactional, constructed activity.

Interaction is guided by the setting in which it takes place (Potter, 2003a). It is deemed necessary though, to emphasize that even though talk will take place in the scuba diving training classroom, the researcher will not assume that talk is necessarily diving related. Contextual relevance will thus not be assumed. Rather, it will be considered how participants make institutional activities relevant *themselves* by for example orienting to them, ignoring them etc.

Discourse (or talk, as it was shown in Figure 1) is situated in various ways. Firstly, it is situated sequentially. The sequential organization of interaction is tremendously powerful for understanding what is going on.   This means that what is said, is set up by what came before it. Sequential positioning sets the conditions for what happens next, yet it does not force or determine it (Potter, 2003a; Edwards et al., 2001). Sequencing and situatedness also applies to action (that is also discussed in section 5.2). Actions do not just exist in isolation, but are responses to other actions, and they in turn set the environment for new actions (Potter, 2003a). Each utterance relates to previous talk and actions, thus knowing when actions occur are necessary to understand what is transpiring.

Goodwin (2000) notes that the accomplishment of social action requires that not only the party producing an action, but also others present, be able to recognize the shape and character of what is occurring. This would mean that separate parties need to recognize in common not only what is happening at the moment, but more crucially, what range of actions are adequate as relevant nexts, such that the other person can build not just another independent action, but instead a relevant coordinated next move to what someone else has just done.   .

If the interview is taken again as example, talk is often seen as owned by the interviewee. From a discursive perspective it is, however, argued that talk is

a co-construction of both parties as what is said by any one of them is occasioned by what the other says (Potter et al., 1999). Speakers' utterances display an understanding of the prior utterance. Any turn of talk is oriented to what came before, and sets up an environment for what comes next (Potter, 2003b; Potter, 1998). Each turn of talk can serve to give a new definition and therefore constructs concepts such as diving safety (Wiggins et al., 2004). If the researcher then makes a claim to some conversational move, evidence would have to be provided that the recipient oriented him/herself (even indirectly) to that move (Potter, 2003b; Potter, 1998). It is thus clear to see that one may find very different things when analyzing talk sequentially rather than for example, selecting pieces of talk to support an idea (Jimerson, 2001). Goodwin (2000) also attends to how strips of talk gain their power as social action via their placement within larger sequential structures and institutional activities, constituted through displays of mutual orientation made by the conversationalist.

Secondly, talk is situated institutionally. This means that what is said, is said by a person in a specific role (for example a diving instructor) performing certain tasks (teaching and giving instructions) and this may be relevant (yet not determining) to what takes place (Potter, 2003b). In other words, what is said for example by students will be said in the context of training and responses are ones constructed to respond to an instructor. It is seen in talk how individuals not only offer descriptions of concepts, but also orientate themselves to it in a particular way (Wiggins et al., 2004). Diving talk is thus constructed in a particular setting (e.g., classroom, diving environment, etc.) and oriented to specific actions (e.g., diving, skills, teaching, evaluation, procedures, etc.).

Wilkinson (2000) emphasizes how talk is designed by speakers for its specific context, and is doing something relevant to and occasioned by that context. It might be important to note the differences in how the term "context" is understood across different analytic approaches. This can range from the local context in which the data is collected (e.g., interviews), to the broader subculture in which participants are located. These differences will obviously have different implications for data analysis and interpretation. Wilkinson

(2000) explains that in discursive psychology, context means the immediate local context of the research situation – that is, the talk that comes immediately before and after any given statement. It is, for example, not only contextualized in relation to statements made by the same person as in biographical analysis. Thus, discursive psychology addresses the immediate context of the research situation.   Wilkinson means that discursive psychology shows how the production of statements about opinion or belief, and the production of information about the lifeworld, is occasioned by its immediate context and is best understood in that context. She agrees that the only version of "experience" to which the researcher has access, is that provided by the research context itself, meaning that "experience" is created by and for, and must be theorized in relation to, the immediate context.

When focusing on the immediate interactional context in institutional settings, Wilkinson has found that talk (such as that in the training setting) can be interactionally tricky, particularly when a presumed "expert" (such as an instructor) is involved. To illustrate this with an example, analysts have noted the difference between being the first to express an opinion and being second, where going first means having to put your opinion on the line, and going second offers an opportunity either for agreement or for potential challenge.

Thirdly, talk can be situated rhetorically. This implies that talk can be put together and delivered in such a way that it counters any response, expectation or interpretation that may be counterproductive to what the talk is intended on doing. Descriptions can be designed to be both offensive and defensive towards potential alternative descriptions that might disqualify the utterance.   When people speak they organize their talk to make argumentative cases and to undermine alternative cases (Edwards et al., 2001; Potter, 1998; Potter, 2003b). When one considers different methods for collecting data, the rhetorical nature of talk also becomes relevant. If the focus group is taken as an example, it might be said that participants will attend to their co-conversationalists' (especially the researcher's) concerns, intentionally countering their assumptions or building with them consensual versions about the world.

The rhetorical nature of discourse also relates to accountability (Potter, 1998). This means that discourse is also designed to act as rational, sensible and justifiable so as to hold its ground in conversations.   Thus, looking at discourse as rhetorical in nature involves how descriptions relate to competing alternatives.   Instead of considering how a description relates to some reality, the focus is on how it relates to competing alternatives (Potter, 2003a).

2.3   Discourse is Action Orientated

Actions, as practical, technical and interpersonal tasks that people perform while living their relationships and doing their jobs, are central to people's lives and therefore central to understanding those lives (Potter et al., 1999). Naturally one might find actions that are generic in nature and appear across a wide range of settings (e.g. greetings, criticism, etc.).   Yet one will also find more specialized actions because of the specificity of the diving setting, and are sometimes seen as modifications and elaborations of generic actions (Potter, 2003a).   From a discursive perspective it is believed that these social activities involve or is directly conducted through discourse (Edwards et al., 2001).

Essentially, discursive analysis is used to study the way in which talk and texts are used to perform actions (Edwards et al., 2001).   Discourse is not only the medium through which people interact but is also the primary medium for action.   Our actions are not only the things we do, but are inseparably part of all our practices.   To take the example of making an invitation, one can see how it is difficult to separate the action of inviting from the language used to invite.   Thus, discourse performs actions (Jimerson, 2001; Potter et al., 1999; Potter, 2003a).   Take for example this research report.   This text not only represents the researcher's ideas, but is also put together to create responses and do particular things. It might for example be designed to inform and convince, and might also be aimed at constructing actions such as acceptance and permission from the reader.   In the simplest terms, the research will draw on how people do things with talk.

Discourses are part of getting things done, and are not just something produced in moments of reflection (Edwards et al., 2001). It is constructed to make things happen (Potter, 2003a). People are seen as using resources in conversation to perform activities that are part of broader practices. It is thus not only a matter of identifying these devices and repertoires, but also of considering how these constructions are used to do things, whether it be justifying the self or criticizing others. The researcher will therefore investigate the discursive resources that diving instructors and students draw upon to construct the sense of actions and experiences relevant to diving, including notions such as safety, danger, fear, and death as part of the context of diving (Potter, 1998).

Most cognitivist approaches hold that the individual builds mental representations of the world, and talk on that basis. In other words, discourse is seen as reflections of these representations (Edwards et al., 2001). In discursive psychology, discourse would be the point of departure, with mind and reality being constructed by the individual in language and in the course of their performance of practical tasks (Potter, 1998). For cognitivists then, the assumption is that our outer reality together with our inner cognition has action as an outcome (Edwards et al., 2001). From a discursive point of view, action and discourse produce and construct our realities, psychological states and inner worlds in interaction, i.e. they are ways of talking and doing things in interaction and not only internal states.

Once again, the argument is not against other perspectives. What we see depends upon where we stand, and it is argued that we would do well to let our participants' interpretations inform our own. While most research on dive safety focus on how panic and fear are inner entities that drive behaviour leading to accidents, injury and death, this research would like to look at those inner states as ways of talk, and how they are interactionally constructed in talk.

If it is assumed that talk is the site of concept negotiation, then representations are taken as constructed to be used in actions, and these

constructions are oriented to actions (Abell et al., 2001). Representations are thus produced and performed as possessing a role in activity. As Potter (2003b:7) aptly puts it: "Talk is oriented to action through being put together, and delivered, in specific ways." To do this, it is important to understand how the talk is situated, as is discussed in section 5.1.

As Goodwin (2000) agrees, in the Human Sciences in general, language and the material world are treated as entirely separate domains of inquiry. However, a theory such as discursive psychology, a theory of action, comes to terms with both the details of language use and the way in which the environment where action occurs figure into its organization.   Thus, in asserting that the construction of safety has significant implications for the lived experience of diving (and safe diving), this research calls for alternate accounts of safety to be considered. In this way, the re-construction of safety becomes an important research objective.

Highlighted through the lens of discursive psychology, is how constructions of safety, and the specific design thereof, contribute to the business of diving. Goodwin (2000) emphasizes the interwoven nature of the actions produced, and the part played by language in that process. When action is investigated in terms of a production of talk, domains of phenomena that are usually treated as the subject matter of entirely separate academic domains, e.g., language and scuba diving, can be analyzed as integrated components of a common process for the production of meaning and action.

Goodwin (2000:1489) then states that: "Human action is built through the simultaneous deployment of a range of quite different kinds of semiotic resources". These resources are often referred to as discursive resources in discursive psychology circles, and are part of a process through which actions are both assembled and understood. Different kinds of discursive resources are juxtaposed in a way that enables them to mutually elaborate each other. Potter & Hepburn (2002) suggest that a focus on the discursive devices or resources drawn on during conversation, might lead one to find that the same

devices might be used to perform other actions and constructions. Likewise, we may find that different devices may be employed to do one job.

Conversationalists' use of various discursive resources does not by any means ensure that congruent interpretation will automatically follow, or that participants will view events in the same way. However, the employment of particular and appropriate devices and an orientation to other participants' use of resources provide for the contingent achievement and ongoing production of events within an unfolding timeline. This means that all parties contribute to the constitution and ongoing development of actions, which are being accomplished through the talk of the moment. Regarding diving safety, safety is then not just a theoretical concept or a static object, but can be open to public discussion; that is, it can be negotiated, disputed, and argued for or against. This means that descriptions of safety are not simply descriptions, but resources within interaction available to all participants.

Wilkinson (2000) notes how other forms of language analysis tends to become a vehicle for conveying underlying beliefs and meanings. However, in a discursive psychology study, talk is studied as a form of action, and this depends on detailed and meticulous transcription, which has the ability to preserve the fine grain of conversation. The focus is on the detail of talk itself, including small details of delivery such as pauses and self-correction. If talk is action orientated then these details are constitutive of the action that talk performs.

With regards to safety then, safety is viewed as situated actions and the construction thereof as orientated to action, rather than a product of mental states or behaviour and with behaviour simply as a result thereof. Talk is not seen as evidence for cognitions and the "sources" of the information that underpins these cognitions. Rather such talk is understood as a form of action designed for its local interactional context. This means that multiple versions within a conversation are not seen as multiple causes, cognitive confusion, or disparate events in a person's life history, but rather as the speaker's attention to specific interactional tasks, i.e. doing and

accomplishing things with talk in interaction. Put another way, it might be more sensible (to the researcher at least) to ask what the role of different ways of constructing safety is, rather than to ask whether divers really have safety in mind. Rather than defining the diver's mind and reality, the researcher shall consider the way descriptions thereof are assembled in and for action.

2.4   Discourse is Constructed and Constructive

Discourse is construct*ed* in that it is made up of various resources, which include not only words, but also categories, commonplace ideas and broader explanatory systems (Potter, 2003b). People use vast collections of words, idioms, and discursive and rhetorical devices in constructing discourse. Central to this idea in discursive psychology, is the notion that the construction of concepts is an activity that participants accomplish themselves. They are not merely passively responding to internal or cognitive states (Wiggins et al., 2004). In previous sections it was shown how discourse is constructed, whether sequentially or contextually. It shows how responses to utterances matter as much as the initial utterance and that this, together with a person's circumstances, influence what he does and does not add in a conversation that leads to the construction thereof.

Furthermore, discourse is construct*ive* in that the way people experience their worlds, their actions, and events are put together in talk in the course of actions (Potter, 2003b). Concepts are thus constructed through the dynamic nature of interaction, and will inherently possess a fluid nature based upon the moment-to-moment construction of the concept (Abell et al., 2001). This implies that the nature of a concept such as diving safety will be negotiated in interaction through a continuous process, and will require the joint efforts of the individuals involved. This not only has meaning in that the presence of each person is important to what safety will be constructed as being, but also that the way they regard or orientate to concepts and utterances will set the stage for such constructive activity (Wiggins et al., 2004).

This constructive nature of discourse brings with it the quality of being context-renewing (Jimerson, 2001). Each utterance is "new" in that it is unrehearsed. Each utterance will contribute to the direction of a conversation and thus each one is constructive in its role of creating the discourse. Each utterance also renews the prevailing sense of the context by means of altering, maintaining, and adjusting to it. Essentially then, each utterance is constructive in how it plays a role in creating the context and reality of the conversationalist (Jimerson, 2001).

Similar to the study done by Wiggins et al. (2004), concerning the discursive construction of eating practices, this research will look at how diving safety is negotiated, defined and constructed in talk. Working from a discursive position will enable the researcher to focus on activities (e.g., urging, negotiating, etc.) that are part of natural conversations and interaction, and how they become bound up with the practice of diving, and more importantly the construction and evaluation thereof (Wiggins et al., 2004). Rather than treating people as acting in settings or responding to them, these actions and settings are treated as products of discourse. They are versions constructed independently of the speaker, and this is treated as an analyzable feature of the production of discourse (Potter, 2003a).

CHAPTER 3
RESEARCH METHODOLOGY

The methodology of this research will be discussed according to the environment in which it was executed, as well as the data that was collected. In addition, the quality of the research will be considered.

3.1   Environment

In this section an explanation will be given with regards to the participants, context, as well as the time and duration of the study.

3.1.1   Participants

This research project was carried out at Reef Divers diving school in Pretoria. The research project included three participants, who will be referred to as students, and one participant who will be referred to as the instructor. Students were aged 20 to 35, and had no prior training in recreational scuba diving. The instructor was in the position of providing students with the fundamental knowledge and practical skills to become an Open Water scuba diver. The researcher was present during the whole of the training process to gather data, but did not actively participate in the training. The researcher's presence was purely for supervision of pricy equipment for which she was responsible.

It is, however, important to keep in mind that a description of the sample, as it is understood in traditional terms, doesn't relate easily to and from traditional (especially quantitative) research, as the discourse research focus is not so much on individuals as on interactional phenomena (Potter, 1998).

The first point, where discursive analysis diverges most radically from the traditional view involves the basic question of sample size. As Potter et al. (1987) admittedly note, discursive analysis is an extremely labour-intensive approach. They however add that, because one is interested in language use

rather than the people generating the language and because a larger number of linguistic patterns are likely to emerge from a few people, small samples are generally quite adequate for investigating a phenomenon.

Potter et al. (1987) also emphasize that the crucial determinant of sample size must be the specific research question. This study, as others, concentrated on a small sample with the goal of showing how a certain effect is achieved. Thus, the generalizability of the results depend on the reader assessing the importance and interest of the effect described and deciding whether it has vital consequences for the area of social life from which it emerged and possibly for other areas.

3.1.2 The Context

The context within which the researcher conducted the research project can be divided into three contexts, namely the classroom, the pool and the open water environment.

- The classroom

This first phase of training consists of 8 hours coursework, which translate into two days of lecturing. During the classroom phase, students become familiar with all the theoretical material that is of importance to become an Open Water scuba diver, provided to them in the form of a "Crew Pack". Lectures include topics such as applied science, diving equipment, safety, and activities. The instructor uses the prescribed material such as books and videos, and presents the lectures in an interactive manner, using training aids such as white boards and overhead projectors.

- The pool environment

As soon as the lectures are completed, the students move on to practice practical skills in a swimming pool. The pool has a shallow end of 1.5 meters deep, as well as a deep end, which has a depth of 3 meters. Pool sessions

start out with a swim test. Thereafter students learn how to kit up and don their equipment. In the pool, skills regarding both skin diving (e.g., snorkelling), and scuba diving (e.g., equalizing, mask and regulator clearing) are taught and practiced. As students become familiar with these skills, they move on to the deep end of the pool where they experience diving in a confined water space, and perfect their buoyancy. The researcher will be collecting data throughout the 8 hours (one day) of pool sessions. Most of the safety skills are taught and practiced during this phase of training. Students will be reminded of all the necessary safety procedures when they go to do their first open water dives, but the third stage mostly comprises of the practical application of these skills, rather than theoretical discussions about them.

- The open water environment

During the third stage of the training process, divers are required to perform four qualifying open water dives (which translates into the final 10 hours of the course). Students will do a maximum of two dives per day, with a maximum depth of 18 meters. The selected group of participants will be performing their qualifying dives at Sodwana Bay, KwaZulu Natal, or the "little one on its own" as the Zulus call it (Venter, 1995). Proud to say, Sodwana bay has been declared a world heritage site, and it is part of the greater St. Lucia Reserve. Sodwana is at present under the jurisdiction of the Natal Parks Board. Entry to the beach at Sodwana Bay is restricted to one control point only. The fact that there is no development on this strip of coast with numerous access points is a commendable measure to ensure the survival of the ecosystem.

The boat enters the water in an area called the launching site, i.e. the surf area through which the boat has to progress towards the open water. The launching site is protected by Jesser Point, which is a large rock formation stretching from the beach into the surf. A boat, once launched, can warm up in the bay and wait for a break. The bay is fairly well protected and diving is not often cancelled. Divers get together on the beach before each dive,

where the instructor briefs them on the coming dive. They then commence to the boat that can take any number of divers up to eleven to the planned destination. Before launching the boat, the skipper will also give a short briefing on boat safety and procedures, followed by a second safety briefing on the boat (out at sea) immediately before the dive. Research data will be collected both during the pre-dive briefing and during the boat briefings.

The reefs have unimaginative, but appropriate names derived from their distance north of the launching area, for example Quarter mile reef, or Two-mile reef (which is a pleistocene dune with sandstone outcrop). The boat will wait for its divers until they have finished diving the reef, make sure that everyone has secured their safety gear, and head back for the shore. When the boat reaches the beach, it is what is called "beaching" as the boat runs on to dry land.

The diving experience, however, doesn't end here. Informal conversations regarding the dive, environment, equipment and problems encountered, can be very informative to the researcher. Instructors give continued education to students after dives to improve the standard of safety, and activities such as completing logbooks after dives contribute to safer diving.

3.1.3 Time and Duration

- The Research Project

The research project was planned to run over a period of two weeks, as this was the aimed time frame for the diving course. However, during this time period only six days were actively utilized for training, namely two days in the classroom, one day in the pool, and three days in the open water environment. Research was done during the year 2004. During this time the researcher was completing her second year of her Masters degree in Counseling Psychology as an Intern Psychologist.

- The Historical Context of Diving and the Researcher as Diver

This research, of course, took place in a setting defined by its activities: Diving. It was therefore deemed necessary to define the setting, not only in place, but also in time. Each diver has his/her own history with diving, which will inevitably be part of what they add in the construction of notions regarding diving. All divers, however, share the same history of diving – where it comes from. This means that the diver's world is informed by this history, and this history is again renewed by his or her own experiences. Hence, following is a brief history of diving as well as that of the researcher as scuba diver.

A Brief History of Diving

Men and woman have practiced breath-hold diving for centuries. Indirect evidence comes from thousand-year-old undersea artefacts found on land (e.g., mother-of-pearl ornaments), and depictions of divers in ancient drawings (Martin, 1997). There are really four "mini-histories" in the fascinating story of man's desire to explore beneath the sea; they correspond to four separate methods of diving, of which scuba is but the latest.

The earliest form of diving, namely breath-hold diving (now called free or skin diving), is still practiced for both sport and commercial purposes. It, however, dates back to 500 B.C., when the Persian King Xerxes I took the Greek Scyllis aboard ship as a prisoner. When Scyllis learned that Xerxes was to attack a Greek flotilla, he seized a knife and jumped overboard. The Persians could not find him in the water and presumed he had drowned. Scyllis surfaced at night and made his way among all the ships in Xerxes's fleet, cutting each ship loose from its moorings. He used a hollow reed as a snorkel to remain unobserved. Then he swam nine miles (15 kilometres) to rejoin the Greeks off Cape Artemisium.

In 1530, the first diving bell was invented. This heavy-walled vessel introduced a new era in the history of diving, as these vessels could maintain their internal atmosphere at or near sea level pressure, and so prevent the

surrounding water pressure from affecting the occupants. The earliest of such diving expeditions were the first authenticated attack by a military submarine – American Turtle vs. HMS Eagle, New York harbour in 1776. Later accounts are those of divers such as William Beebe, a diving pioneer and "oceanographic naturalist", who descended 1426 feet in a round, 4'9" bathysphere, attached to a mother ship by means of a non-twisting steel cable.

The next development in diving came when Von Guericke developed the first effective air pump in 1650. It was with such a pump that Edmund Halley (of comet fame) patented a diving bell (in 1690), which was connected by a pipe to weighted barrels of air that could be replenished from the surface. The idea of air supplied from the surface went on to be used by Charles Anthony Deane and his brother John Deane, who patented a "smoke helmet" for fighting fires, but marketed it in 1828 with a diving suit. The helmet fitted over a man's head and is held on with weights, while air is supplied from the surface through a hose.

Englishman William James only invented the first workable, full-time SCUBA in 1825. It incorporated a cylindrical belt around the diver's trunk that serves as an air reservoir, but it is unclear if this equipment was ever actually used for diving. Probably the most significant event that marks a fundamental alteration of SCUBA for most divers, was the invention of the Aqua Lung by Jacques-Yves Cousteau (a French naval lieutenant) and Emile Gagnan (an engineer for Air Liquide). They worked together to redesign a car regulator that would automatically provide compressed air to a diver on his slightest intake of a breath. Although self-contained apparatuses had been around since 1865, when Benoit Rouquayrol and Auguste Denayrouse patented a horizontal steel tank that held compressed air, air was still supplied continuously, or had to be manually turned on and off.

Today more than 500 000 new scuba divers are certified yearly, new scuba magazines form, dive computers proliferate, and scuba is transformed into a multi-billion dollar industry.

The Researcher as a Scuba Diver

For the purpose of contextualising the researcher's experience of diving (and especially training) and what that might bring to the research report, a brief reflective account of the researcher's history as a scuba diver is given. Although the researcher did not participate in the events of the research, she did make interpretations of particular constructions during such events. The researcher felt that these interpretations were partially informed and constructed by her own lived experience of diving and training, and that the research also informed and was constructive of her world of diving.

I started my training as a scuba diver in March 2002, which was the perfect time to do so according to the instructor and other divers, as it was summer and that meant great diving conditions, and also that the "Raggies" (ragged-tooth sharks) might still be at Sodwana. I disregarded this in favour of focusing on the first time I actually had to put my head underwater in the small but deep swimming pool where we were trained. Training was informative, yet it did not dissolve all my apprehensions about diving in the vastness of the ocean. Yet all uncertainties and ill-founded anticipations disappeared the instance I submerged in the warm Sodwana waters onto Quarter mile reef. I knew then that I would forever be a diver in every sense of the word.

I experienced my training as thorough and systematic. Certain things were done at certain times, and going from a non-diver to a scuba diver progressively unfolded step-by-step. Initial theory lessons came across as scientific and foreign in nature, which to me symbolized the technical and different nature of this sport (which at this point seemed more like a career with high risks, than "casual diving" as some called it!). Practical training at the pool entailed mini-lectures on "never do this" and "always do that or something terrible might happen to you". My instructor worked very methodically and was consistent in nature, which made what seemed to be thousands of instructions more manageable to me.

Something that I found interesting as all of this went on was how the instruction actively silenced my own experiences, as well as that of the other students. Along the way each one of us experienced some hiccup, and even though we saw that in each other, it was set aside. Things had to run smoothly, and even though it was frightening for me to take off my mask underwater for the fear of loosing my contact lenses, the procedure was followed rigidly with me silently figuring out how I am going to cope with this on my own.

Fun was also a part of training - a separate and required part. The saying of "work hard, play hard" comes to mind. It was an experience that thrilled and also one that made me part of a new group, in a way giving me an additional identity. I'm a diver now. I learned that the world of diving is quite an evaluative, competitive, and hierarchical one. You are either a good or a bad diver, experienced or inexperienced, advanced or new, and ultimately respected or not. I heard divers speak of their experiences, and I also heard them evaluating mine. How happy I was to hear that it was positive – capturing me in a competitive game to qualify first, do more dives, get more qualifications…

And I smile when I think that this is what goes on above the surface. Maybe this is why divers love diving so much, because when we descend below the surface we become equals. We cannot speak and we cannot hear. The only interaction is between you and the ocean and that which is in it. Each diver is as fragile as the rest. Experience seems pure, almost extra-terrestrial. All the things that go on up there disappear down here. The following quote is one by which I can define myself as a diver and how my experience as a diver has shaped my world:

'The sea does not belong to despots. Upon its surface men can still exercise unjust laws, tear one another to pieces, and be carried away with terrestrial horrors. But at thirty feet below its level, their reign ceases, their influence is quenched and their power disappears. Ah! Sir, live - live in the bosom of the

waters! There only is independence! There I recognise no master! There I am free!

- Captain Nemo in 20 000 Leagues Under the Sea, Jules Verne in Ecott, 2001, p.v.

3.2   Data

In this section an explanation is given with regards to the collection, transcription, analysis and quality of the data that was collected during the course of this research.

3.2.1 Collection

Data was collected during only two of the three training phases, namely the classroom, and at the pool. All natural conversations were recorded as they occurred during training.

Recordings of the classroom and pool phases were done using a cassette recorder. In order to obtain the best possible sound quality, a "Nauman dumihead" was used as the stereo microphone input. In addition a mixer was used as a pre-amplifier for the microphones. This method increased the audibility of the conversation immensely, and therefore contributed to the quality and precision of analysis. The cassettes were played back and recorded to a personal computer using an RCA-to-stereo jack. Once recorded, the sound files were written to compact disk in order to be transportable. After storing the data files on the hard disk of the personal computer, the voice recordings could then be processed using CoolEdit program software. The use of this software provides for convenient copying, searching and editing of the data.

The researcher also collaborated with a sound engineer to further process and code the data gathered during the project. Coding in this instance refers to sifting relevant materials from a larger body of transcript. This process did,

however, continue cyclically throughout the research process, as ideas were refined.

In order to shed some light on the nature of the data that was recorded, it should be mentioned that this research was characterized with a movement away from open-ended interviews and focus groups towards naturalistic materials, which involved human interaction that was recorded, transcribed and analyzed. The conversational environment was entered to observe and record certain practices and to identify the discursive resources drawn on in those practices. Naturalistic materials have a range of advantages with actuality, action orientation, and observation of participants' orientation to the setting being only a few.

The description of talk as 'naturally occurring' has various possible meanings. In the idealized form, it would probably refer to informal conversation which would have occurred even if it was not being observed or recorded, and which was unaffected by the presence of the observer and recording equipment. However, such an idealistic situation is unobtainable due to obvious technical (e.g., visibility of equipment) and ethical (e.g., informed consent) reasons.

According to Wetherell, Taylor & Yates (2001), the closest satisfactory approximation, as in this study, is talk that occurs naturally in more structured situations such as courtrooms, medical consultations or in this event, training sessions. The naturalness here would not necessarily refer to whether the speakers were relaxed or unselfconscious, but to how what the talk was about was uninfluenced by the researcher. This means that natural talk is contrasted with more conventional research interviews in which the researcher attempts to initiate talk which is "about" something, by conducting interviews specifically for the purpose of the research.

Justification for the use of naturally occurring data (as opposed to more structured techniques) would then rest on the fact that, firstly the interview is unnatural because the interviewer controls the interaction and influences the

talk and, secondly the researcher incorrectly assumes that the talk is about the official topic of the interview, imposing his/her own interpretations on the talk (Wetherell et al., 2001).

It should, however, be mentioned once again that this is not a critique on methods such as the interview. The focus is more on how these methods are treated than how they are done. When interviews are treated as machinery for harvesting psychologically and linguistically interesting responses, the researcher is inevitably focused on those elements of interviews contributed by the participant rather than those from the researcher. What a method such as discursive analysis would suggest, is not that we discard of such a method, but that we conceptualize it as an arena for interaction. In this way we treat them as a form of naturally unfolding conversational interaction, by analysing them the same way that we might a cross-examination in a courtroom, where concepts and categories are continuously refined and reworked by all the conversationalists (including the researcher).

3.2.2 Transcription

Discursive analysis places a great deal of emphasis on the use of extracts from transcriptions of tape-recorded, naturally occurring interactions in research. Following from such principles, once the data was processed, the researcher used a method of transcription developed by Gail Jefferson to transcribe selected conversations into text material (see Appendix B for a glossary of the notation symbols used). Most authors agree that, even though there are other systems available for transcription, the Jeffersonian method has been mostly used and is the best system for most work. It uses symbols that convey features of vocal delivery that have been shown to be interactionally important to participants (Potter, 2003b; Potter, 2003a; Wiggins et al., 2004; Hutchby & Wooffitt, 1998).

According to Potter et al. (1987), the importance and difficulty of transcription is often underestimated. Transcription is a constructive and conventional activity. The transcriber struggles to make clear decisions about what exactly

is said, and then to represent those words in a conventional orthographic system. This, even in the most basic form, is an extremely time consuming activity. The time taken for transcription varies with the transcription system adopted. For the full Jefferson style transcription as was used in this research, the tape time to transcription time ratio is approximately one to twenty or more.

Transcription, and specifically detailed transcription such as this, was a key element in this study in two important respects. First, it was a necessary initial step in making possible the analysis of recorded interaction in the way that discursive analysis requires. Secondly, the practice of transcription and production of a transcript represents a distinctive stage in the process of data analysis itself. Another important aspect of transcription as it was done in this research, was not treating the transcripts as the data. Hutchby et al. (1998) also note that the data consists of tape recordings of conversations and the transcript is seen as a representation of the data. The tape was thus not discarded in favour of the transcript, but instead the data was analysed with the transcript as a convenient tool of reference.

The use of different systems for transcription is not merely accidental. The development of transcription and theory go hand in hand (Edwards et al., 1992). The use of discursive analysis conventions such as Jefferson's reflects an analytical concern with how talk accomplishes actions. To otherwise present talk through using everyday conventions of written text by transcribing talk verbatim, is likely to coincide with a different approach to language where differences between text and talk are not considered important, and which might treat utterances as reflections of thought and cognitive representations. As Muller (2004) also states, transcription systems are designed to support a particular kind of analysis, and in this research it was developed for the transcription of talk as social action.

The researcher's interest in talk as interaction has thus lead her to not only include in the data the talk itself, but also other aspects of the spoken interaction, such as the sequential organization of utterances and pauses. As

Wetherell et al. (2001) support, the researcher consequently worked with a smaller quantity of data, as it needs to be much more detailed.

3.2.3 Analysis

The transcribed data was finally discursively analyzed and interpreted, and both the transcribed voice recordings and the researcher's interpretations thereof, are provided in this research report. In doing so, the reader will not only be subjected to the researcher's interpretations, but will be allowed to inspect the data and analysis, and make his/her own interpretations of the given text. This opens up the text for evaluation in a way that is rare in other styles of research. The researcher also worked collaboratively in taking part in group data sessions to gain multiple perspectives on the analysis. At this stage anonymity had already been ensured so as to preserve confidentiality.

Discursive analysis is a methodology grounded in its data, looking at the discursive resources and devices that people use in their conversations. This requires a detailed record of what people say in interaction. By exploring the data's orderliness, it tries to explain patterns of human interaction. Discursive analysis thus places an emphasis on the detail and features of talk, such as intonation, pauses and delay, which is seen as consequential for interaction. A methodology such as this one delineates the primacy of practices of interaction, treating the way people speak to be just as meaningful as what they say. Analytic work avoids expectations and assumptions that would prevent the analyst from seeing a range of intricacies in the interaction. It reveals an order to interaction that participants are often unable to formulate in abstract terms (Potter, 1998).

Discursive analysis is a method suited in applying the principles from discursive psychology by rigorously analyzing performance, by using recordings and transcribed records of interaction in the selected setting. This analytic method was chosen as it was derived from the theoretical framework from which the researcher will work, namely discursive psychology (Hutchby et al., 1998; Edwards et al., 2001). Since it is believed that talk is ordered in

its detail (e.g., formulation, intonation, etc.), it seemed suited to select a method that could capture this detail. In so much as what discursive psychology is an action-orientated theory, discursive analysis studies how talk and texts are used to perform actions. As Edwards et al. (2001:9) state: "Ways of talking can be unravelled through a detailed analysis of how specific descriptions are constructed in ways that perform discursive actions within sequential, rhetorical sequences of talk."

Silverman (1997) also states that discursive analysis studies focus on transcripts of talk from everyday or (as in this case) institutional settings. He indicates a concern with the qualitative nature of this research methodology, and emphasizes that even though this is an overwhelmingly qualitative method, it does not imply an argument against quantification per se, but rather against the way counting and coding often obscures the activities being done with talk and text.

According to Wilson & McLuckie (2002), discursive analysis is concerned with the examination of talk, to reveal the linguistic and rhetorical devices that are used to construct various objects and events. Therefore, within this methodological approach, language (and more specifically talk) becomes the focus of interest. Attention is paid to the structuring effects of talk, with emphasis on the production and constraint of meaning. Discursive analysis, therefore, offers a powerful methodology for looking at the ways in which safety is constructed, as it provides an analytical tool for examining the constructive effects of talk.

Frequently, analysis proceeds by treating language as both primary and autonomous. Goodwin (2000), for example argues against the usual analytic and disciplinary boundaries that isolate language from its environment and interweaved action by lumping everything that isn't language into the category "context". With a method such as discursive analysis it is thus observed how multiple participants attempt to carry out courses of action in concert with each other through talk, while attending to the larger activities that their

current actions are embedded within (what Potter might call institutional situatedness).

It is then apparent that discursive analysis in this instance would allow for the examination of the interactional work done by talk about safety. An aspect that is cumbersome to the discursive analyst and which Friedland & Miller (1999) mean one should avoid when doing discursive analysis, is the temptation to classify a construct such as safety (or the absence thereof) in terms of certain causes. Instead talk should be approached from a bottom-up data-driven perspective. In other words, not subjectively labelling behaviour as representing one or the other apriori category, but rather investigating the unfolding turn-by-turn manifestation of the behaviour in ongoing conversation within the setting. As Silverman (1997) states, rather than conceiving of a world of discrete variables with discrete effects, in discursive analysis there are constructions and versions that may be adopted, responded to or undermined. Thus norms are oriented to; that is, they are not templates for actions but provide a way of interpreting deviations.

In doing discursive analysis, Potter in Silverman (1997) notes that it is "a craft skill, more like bike riding or chicken sexing than following the recipe for a mild chicken rogan josh". In other words, it is not a traditional method that can be codified with specific guidelines. Conversation analysts sometimes talk of developing an analytic mentality, which offer a closer description of what it entails to do discursive analysis. Potter et al. (1987) adequately suggest that there is no mechanical procedure for producing findings from an archive of transcript. There is no obvious parallel to the well-controlled experimental design and test of statistical significance.

From this it seems clear that there is not necessarily an analytic method. Rather, there is a broad theoretical framework, which focuses attention on the constructive and functional dimensions of discourse, coupled with the identification of significant patterns of consistency and variation.

In concurrence with such a framework, Wilkinson (2000) describes analysis of talk as a methodology that doesn't offer a transparent window into what an individual believes or thinks or where the source of that might be, but rather assists in identifying conversational resources used by participants for managing interactional difficulties. Discursive analysis then doesn't assume to have direct access to people's beliefs or a direct knowledge of their lives. Discursive analysis limits itself to, and capitalizes on what can be directly observed – that is the talk that participants produce in the specific interactional context of the research situation. Similarly Silverman (1997) emphasizes how discursive analysis has an analytic commitment to studying discourse as text and talk in social practices. The focus is not on language as an abstract entity, e.g., a set of grammatical rules, but as a medium for interaction. In other words, the analysis of discourse is also the analysis of what people do.

According to Wilkinson (2000), an important feature of discursive analysis is its attention to the precise detail of what is said. In contrast with this view are discourse and narrative researchers, who might transcribe talk without subjecting it to analysis. They seem to mostly resort to paraphrasing and summarizing which doesn't make it a lesser methodology, but devoids the data of small details that give talk its immediacy and impact. As Potter et al. (1987) state, in such research one would read for gist in order to produce a simple, unitary summary. They also note that discursive analysis, on the other hand, is concerned with the detail of utterances, however fragmented and contradictory. In addition, the concern lies with what is actually said, and not some general idea of what seems to be intended.

In criticism of an approach that offers a detailed and sophisticated analysis of talk, grounded in participants' own utterances, it can be said that because of this focus on the specificity of talk, it doesn't easily permit either an overview of the full data set, or a detailed focus on the lives of individuals outside the research context.

Wilkinson (2000), however, points out that in other forms of analysis (e.g., biographical analysis), inaccuracies in quoting from the data are commonplace. These might be minor differences (e.g., "mm" instead of "yeah"), but have been shown to have different conversational functions and is of analytic importance. The strength of analysis in discursive analysis then lies not only in explaining the broad organization of the data, but most importantly the moment-to-moment detail of utterances.

Potter et al. (1987) describe analysis as consisting of two phases, which proves to be a useful approach to considering the data. First, the data is searched for a pattern. Most important to note is that variability (differences) is a pattern that is as important to note as consistency (i.e., participants' shared accounts). The second phase concerns function and consequence. This implies that talk fulfils many functions and has varying effects. The idea would thus be to form hypotheses about these functions and effects and consequently searching for the linguistic evidence.

Where does a methodology of this kind leave us then? Potter and Wetherell in Wilson et al. (2002), answer this question by concluding that the central concern of discursive analysis lies in the application of findings, through which discursive analysis moves away from "just looking at words" to dealing with "real issues". With this in mind, the objective is to present the ideas and findings of this research to divers and instructors. This is a potentially valuable endeavour in two regards. Firstly it can facilitate direct commentary on the research with regards to the construction of diving safety of those who practice it. Secondly, it can create a forum in which the dominant constructions of safety can be questioned and challenged.

3.3   Quality

3.3.1 Enhancing Analysis

Discursive psychology and analysis represents a relatively new method of research and understanding the nature of psychology itself. One finds that

there are different forms of analysis, with different assumptions being made about method, theory and the nature of discourse.   Irrespective of the different styles that are being used when doing discursive analysis, the concern lies in the quality of such research.   There are some basic requirements that the researcher took into consideration in order to promote the particular type of discursive analysis, and avoid non-analysis (Antaki, Billig, Edwards & Potter, 2002).

Firstly the researcher had to be cautious of the notion that transcription replaces analysis. One should view transcription as a means of preparing the data for analysis, but not as analysis in itself. What the researcher then does with the data is also important.   A mere summary of themes of what participants say does not represent analysis, and is likely to cause the researcher to lose the detail and discursive subtlety of the original data. Under-analysis through summary will lose information and add none.

This does not mean that any additional information that the researcher offers represents discursive analysis.   Some analysts are prone to taking moral, political or personal positions towards participants or what is said.   Yet, whether analysts align themselves with, or distance themselves from their speakers, the concern remains the same.   The danger lies in substituting such positioning for analysis.   Taking sides is not analysis (Antaki et al., 2002).

Taking sides, in itself, poses another form of under-analysis. Taking sides for whatever reason, irrespective of the desirability thereof in its own right, is not the same as analyzing what is said. When the researcher examines in detail the discursive strategies that the speaker might use, in relation to the researcher's questions, it would bring him/her closer towards actual analysis. When not allied to careful analysis, taking sides can lead to simplification of what is said and counter the process of analysis.

Furthermore, the researcher attempted to avoid over-quotation, thus extracting quotations from the data and only summarizing the collection of

quotes with a comment about the data (Antaki et al., 2002). In doing this, the utterances are divorced from their discursive context, with the result that it would become impossible to analyze them in terms of responses to questions or statements. Under-analysis through isolated quotation poses a similar problem. In this instance the quote is again not an analysis, but simply a means for the author to support his argument by allowing the quote to stand as self-evident.

However, quotations can be part of analysis in showing how speakers are sharing common discursive resources to frame their utterances. The researcher not only claims that such utterances were made, but adds that all these utterances have something in common. The problem comes when care is not taken to substantiate the claim. Again the data shouldn't stand as self-evident. When the quotes that led the researcher to claim the existence of a discourse are then explained in terms of this discourse, it would represent under-analysis through circular discovery. In other words, after using the quotes to claim the discourse, the researcher implies that the speakers made those utterances because they share the discourse.

Another uncommon danger in experimental social psychology is the notion to subtly generalize findings from the sample to the population they are supposed to represent. The same danger holds for qualitative work that, for example, discovers that participants use certain discourses. It can be easy for the researcher to treat his/her findings as if they were true for all members of the category in which the research was done. The fault of under-analysis through false survey makes it easy for quantitative researchers to dispel such research on the basis of inappropriate evidence for its claims (Antaki et al., 2002).

Finally, if discursive analysis demands attention to the details of utterances, it does not mean that such attention qualifies as analysis. The recognition of conversational features does not constitute analysis. As the words of Antaki et al. (2002) adequately suggest: "…research does not, and should not, consist principally of feature-spotting, just as analyzing the history and

functions of the railway system cannot be accomplished by train-spotting". What is required is to show what the feature does, how it is used, what it is used to do, and so on. In conclusion it is perhaps safe to say, "…analysis means a close engagement with one's text or transcripts, and the illumination of their meaning and significance through insightful and technically sophisticated work" (Antaki et al., 2002:18).

3.3.2   Validity

Discursive analysis is a process of exploration and interpretation, but simultaneously one of evaluation. As a point of departure, Wetherell et al. (2001) note that while analysing, one should refer back to the aims of the research, evaluating findings with reference to the research question at hand.

The question of evaluation in qualitative research has been discussed at length, yet no specific criteria for evaluation have gained unanimous acceptance. All are, inevitably, open to criticism. It therefore becomes necessary for the researcher to present an argument for the value of the analysis, which includes the following explanation and justification of some criteria for evaluation.

Before continuing too hastily with considering different criteria, it might be necessary for the reader to gain some insight into the epistemological view that underlies the researcher's justifications. In accordance with the study's theoretical position, as well as its methodology, this research will subscribe to a post-modern conception of validity by taking the concept back to everyday language and interaction. In modern social science the concepts of validity, reliability and generalization seems to be far removed from the interactions of the everyday world. It is here where a post-modern conception of validity deviates most from more positivistic perspectives. Underlying validity in a post-modern context is the understanding that validity starts in the lived world and daily language, where issues of reliability and validity are part of social interaction (Kvale, 1995).

This then means that the conception of knowledge as a mirror of reality is replaced by knowledge as a linguistic and social construction of reality. There is a focus upon interpretation and negotiation of the meaning of the lived world. As Rorty in Kvale (1995:22) explains, "conversation becomes the ultimate context within which knowledge is to be understood". The implication thereof is then that a construct and its measurement are validated when the discourse about their relationship is persuasive to the community of researchers.

Kvale (1995) outlines some aspects pertaining to validity. First, validation becomes the issue of choosing among competing and falsifiable interpretations, of examining and providing arguments for the relative credibility of alternative knowledge claims. Validation here thus comes to imply the quality of the craftsmanship in research.

Second, with a social construction of reality the emphasis is on the discourse of the community. Communication of knowledge becomes significant, with aesthetics and rhetoric entering into the scientific discourse.

Third, justification of knowledge is replaced by application. Knowledge becomes the ability to perform effective actions. Criteria of efficiency and their desirability become pivotal. Important to note is that this perspective on validity does not lead to fixed criteria replacing the modern or positivistic concepts of validity, but rather to extending the frames of reference for asking about validity of knowledge in the social sciences.

The validity of this text is also once again seen in the light of its situatedness, as well as the constructed and constructive nature of texts. The knowledge produced by this research is assumed to be situated, meaning that claims made in the research, can refer only to the specific circumstances of place, time and participants in which the research was conducted. Furthermore, the researcher acknowledges the reflexivity of the research process and the non-neutrality of research texts. These texts are not neutral but reflect how the text is constructed through particular world-views and sets of interests. Also,

the text doesn't simply and transparently report on an independent order of reality. Rather, the text itself is constructively implicated in the work of reality construction.

Wetherell et al. (2001) offer a few useful guidelines in evaluating research, and more specifically discursive analysis. They mention that research should be located in relation to previously published work, building on or challenging the claims of other academics. Furthermore, research should be coherent, depending for its persuasiveness on argument rather than, say, emotional impact. With specific regards to analysis, it is emphasized that analysis must involve more systematic investigation, sometimes referred to as rigour. Rigour can be linked on the one hand to the richness of detail present in data and analysis, and on the other to the explication of the process of analysis. Furthermore, discursive analysis should seek out negative instances or deviant cases as part of a fallibilistic approach. Potter et al. (1987) also recommend that analysis should attend to inconsistency and diversity, as these are general features of natural talk and one should note where and how participants orient to it.

Silverman (1997) also puts forward ways of evaluating analysis, and agrees on focussing on deviant cases as a necessary consideration. He adds coherence with other discursive analytic studies, as well as the evaluation that the readers themselves can make when presented with the transcript alongside of its analytic interpretations, as important evaluative criteria. In accordance with the techniques set forth by Potter et al. (1987), Silverman (1997) means that participants' orientation to phenomena claimed in the analysis is of utmost importance to the evaluation of the research.

Regarding participants' orientation, Potter et al. (1987) note that when looking at variability and consistency, it is not sufficient to depend on the analyst's judgement of the interpretations being consistent or dissonant. Also important is what participants see as consistent and different, as they define meaning in their interaction. Wetherell et al. (2001) confirm this approach by stating that the validity of discursive research relies upon the quality of the

interpretation, and that this can partially be established through feedback from participants (a technique called member checking).

In addition to this technique, Potter et al. (1987) report three other techniques for validating findings in this kind of research. First, emphasis is placed on the coherence of the analysis. There should be no "loose ends", meaning that the features of discourse evident in the database should fit the explanation. Also, the explanation should account for both the broad patterns and many of the micro-sequences in the discourse. Secondly, discursive resources are not only created to solve problems (in interaction), but also create new ones. The existence of new problems (and solutions), provide further confirmation for such discursive resources being used. Finally, there is a criterion that is also generally used for scientific explanation, namely whether it can be used to generate fresh solutions to the problem. The same applies here. The scope of the analytic scheme should be evaluated for the extent to which it makes sense of new kinds of discourse and generates novel explanations. Linking with this idea, Riessman in Wetherell et al. (2001) agrees with Potter et al. (1987) on the aspect of the fruitfulness of research. He calls it pragmatic use, referring to the extent that one study provides a basis for further work by other researchers.

A final consideration for quality, which is particularly relevant to discursive analysis, and emphasized by Wetherell et al. (2001), is that of the quality or detail of transcription. This not only means that a fuller transcript is better because it is more detailed, but also that interpretations are then supported by the conversationalists themselves, i.e. the transcript is able to capture what happened.

In conclusion, as Wetherell et al. (2001) would also suggest, in the absence of set criteria (as in quantitative research perhaps), the onus is on the researcher to present arguments for the value of the study. This will require provision of detailed accounts of the processes of data collection and analysis, as well as the more theoretical underpinning (as this study already attempted to present to the reader).

CHAPTER 4
RESULTS

4.1   Activity: Backward Roll

Description: The "backward roll" is one of a few techniques in scuba diving performed to enter the water. The "backward roll" is used specifically when diving from a small boat such as a rubber duck. At this stage all the divers are wearing their full kit (equipment), which limits space on the boat. The diver sits on the side of the boat facing the inside of the boat with his/her back towards the water. The "backward roll" entails a joint activity where all divers on the boat (between two and eleven divers) have to roll backwards simultaneously on a count given by a person on the boat. The activity requires that all divers promptly react on the count so as to enter the water simultaneously in order to avoid endangering other divers by falling on top of them.

Following is an analysis of a piece of transcript concerning the backward roll. However, the transcript was divided into three consecutive parts to form extract 1, 2 and 3 in order to make analysis more manageable to both the researcher and reader. Analysis proceeds by considering one extract at a time followed by its discussion. Thereafter all three extracts are analyzed as a whole for their broader characteristics, which will finally be discussed.

Instructor:

Extract 1

1 <u>If</u> it goes(.) one two three go koing! king! koing! chlu!.
2 alright you end up with sca:rs and a:rms and things like that
3 alright. cause ↑what happens is (1.3) everyone sits like
4 this on next to each other on the boat. (0.6) °ok° the boat
5 ↑<u>slow</u>ly drifts forward(.) °k°(.) now the skipper comes o::ne
6 two: three go- goi! >everyone in the water< (0.5) alright

Before continuing with a detailed analysis of the extracts, it is noted that the researcher sees these three extracts as talk about being proactive. For the researcher the talk about the backward roll is performing a convincing action

with regards to what should be done in a problem situation so as to avoid danger.

The instructor initiates an introduction of this activity in line 1 by immediately setting it up as an "activity of conditions", if we consider the use of the word "if". This means that the instructor sets up a condition with certain consequences that follow, should the condition not be adhered to. He also starts off by illustrating the activity in its incorrect form (see line 2). Our concern is with what this particular construction of the activity and the way it starts off, might be doing. Before jumping to conclusions, it should be kept in mind that what is said should be considered as situated, meaning that lines 1-3 are utterances, not simply in themselves and speaking for themselves, but talk that follows and precedes other utterances. Let us then first consider what came after lines 1-3 in order to help clarify any hypotheses that could be made about the work that it is doing.

From line 3 ("cause what happens is") to line 6 we find an explanation of what happens during the backward roll. This seems to be an account of the way that this activity is usually performed. Consider the use of the word "everyone" in line 6. This seems to display the act as being general and thus normalizes the account of performing the backward roll, supplying the listener with a normal or standard account of how this activity is usually performed. Potter (1996:197) calls this device a "script formulation". This is then the account that is preceded by the condition and negative account of the backward roll in lines 1-3.

In the light of the above we can now refine our initial question, as to what the talk in lines 1-3 is doing, to what are the given condition and negative account of the backward roll doing as an introduction to the normalized account of the same activity? Why is it necessary for the instructor to first tell his students what it shouldn't look (or sound) like, before providing the standard form of the activity? It can perhaps be argued that a normal account of the activity would not have the same impact as an incorrect account where the divers "end up with scars and arms…" It would probably be safe to say that the impact of the

former account in the transcript could potentially be of greater magnitude than the latter more normal one.

Accordingly it is argued that the introductory statement serves to make a certain impact on the listeners before confronting them with the standard (and probably preferred) version of the backward roll. This impact is suggested to be one made on the listener's attention to what is said. The conversation starts off with a condition that is given and in addition the negative consequences of the activity, strengthening the prospect of negative consequences in reality for the listener of such a negative or incorrect performance, even before having heard anything else of the activity.

The instructor seems to draw upon a few devices in ensuring the impacting nature of lines 1-3. The researcher will assert that the animated illustration of the negative or incorrect performance of the activity in line 1 ("koing, king, koing, chlu") is a device employed to further enhance the impact of this utterance. By enhancing the descriptive techniques in illustrating the action, i.e. by drawing on the listener's senses (what the action sounds like) as well as his/her imagination (by not overtly putting words to the action), it makes the utterance all the more vivid to the listener (Wetherell et el., 2001). It is thus hypothesized that by first providing such an impacting account of the incorrect performance of the activity and the inevitable consequences it holds, it lays claim on the listener's attention to the correct performance of the activity. To answer the question then, the utterance in lines 1-3 seems to act as a motivation for further and more attentive listening to the standard performance of the activity, which the instructor is about to give. It says to the listener that it would be in the interest of his/her own safety to listen carefully to what follows, and to regard it as important. It also seems that by enhancing the impact of the preceding account of incorrect performance, this aids in enhancing the impact of the following correct account of the activity, i.e. displaying the seriousness of the correct performance.

In line 3, preceding the "normal" account, we find a delay of 1.3 seconds – the longest pause in the entire transcript. This seems to work in conjunction with

what has been explained above in terms of enhancing the impact of the account. Potter et al. (1987) state that participants pay close attention to delays, and one would think it to be the case, especially in the instance of such a long pause. The delay seems to function as a demarcation, which already begins to aid in making what follows important. It marks the start of something significant, and could metaphorically be likened to something like a "drum roll" where the listeners figuratively hold their breath. Jefferson as cited in Muller (2004) states that pauses invite listeners to join in the conversation. However, this was found within the context of conversation, and it is obvious that the form that this talk took deviates remarkably from everyday conversation. The researcher was therefore hesitant to interpret the pause/delay in this manner.

The rhetorical function of lines 1-3 can also be considered. When the listener is firstly confronted with a version of the activity that possesses harmful consequences, it seems to increase the necessity of accepting the version that follows, in order to avoid the already known harm. If lines 3-6 appeared in isolation, the motivation for accepting them without question would possibly have been less considering that they would not have been made sense of in the light of harmful consequences. The standard or normal performance of the activity is thus grounded in that a dismissal thereof would have real effects for experience in reality. In this way lines 1-3 work rhetorically in countering possible dismissals of lines 3-6. Also note then how talk is oriented to action in "real" life, and how the instructor structures his talk to pertain to real events and experiences (e.g. line 2), making them relevant and attempting to construct their future execution by the students.

In lines 3-6, where the "normal" or standard account is given, we again find instances of increased description of the activity, seemingly contributing to the work of impacting on the listener. In line 4 the instructor makes a false start ("on next to each other on"). He allows here for further description and deliberately inserts more information about what "like this" looks like. Furthermore, in line 5, the instructor descriptively explains how the boat moves, with the use of "slowly". The manner in which the word is delivered both with emphasis and also with a heightened pitch, further contributes to its

importance. Adding to the believability of this description, is the use of active voicing in line 6 ("one two three go"). In explaining the activity very descriptively it not only serves in making it more impacting, but perhaps also gives clarity and believability to the method of performance, making the account more convincing. Attention is thus given to the importance of the accounts by means of increased description.

Extract 2

7   (0.3) BUT (0.5) £the joburg way of doing it, (0.5) one two
8   three go£ goi! goit! thp!]
9   [laughter]
10   [right on top of each other. (0.5)
11   alright they <u>do</u> it]. (0.4) believe me they <u>do</u> it. (0.4) alright
12   they look like <u>do</u>minoes. (0.4) and they all land on top of
13   each other. °alright°]
14   [laughter]
15   [very ↑ <u>dange</u>rous. ↑ <u>not</u> a nice idea
16   to be in the ↑ water? doing your backward roll and there's
17   this yellow cylinder coming for you]. °alright° <u>been</u> there
18   <u>seen</u> that. alright. (0.4) it's not very (0.4) pleasant. ekay so

In line 7 the instructor constructs the backward roll by a telling of how not to do it, describing how a specific group of people (Joburg people) does it. Additionally, in line 12 the instructor makes use of a metaphor in the construction of this action (performing a backward roll). In employing the device of the telling of others, however, he is not only constructing the "wrongly executed" action but seemingly also the "wrong doing" person, as the personification of the metaphor is evident. The researcher will accordingly argue that both the metaphor and the "telling of others" are employed in the construction of "the other", and simultaneously in self-construction. If that is what the other does and is, it must be realized that the other cannot be in existence without the self on the opposite end. If we compare extract 1 with extract 2, we can see how the telling of the others (in extract 2) is set up by first telling of "everyone" (extract 1, line 6), opposing everyone with Joburgers.

At this stage it is becoming pivotal to add information about the students. It is important for the reader to know that two of the three students are from Johannesburg, and inevitably this situates the metaphor differently. It is now not simply a personified metaphor concerning "others" in that it is about other people, but the "others" being described are similar to actual students in the classroom. This is not just a metaphor employed to create the other, but also a specific other – the Joburger, creating opportunity for the student as Joburger to relate to this metaphor. The instructor situates this metaphor to stand in relation to the two students in a way that they cannot deny. It seems that the instructor metaphorically draws on the two students in his construction of the backward roll. The questions that arise are: "how does he draw upon them?" and "how does he 'use' these students' identity in constructing the activity at hand?"

The researcher feels that our place of residence, our place of origin, is an integral part of how we describe ourselves. People often use their place of origin in conversation as a means to convey to others who they are, to what group or culture they belong, and what others should make of them. Thus, in using a description of the two students, that so closely resembles them in his lecture, it should be expected to, at the very least, make a claim on them or attempt to involve them in some way. It seems to be constructive of Joburgers' experience, and even though it does not directly construct the students' experience, the researcher sees this as constructive of expectations about their experience, indirectly making claims about it and so exerting a constructive function on their future experience.

It draws the boundary of who the other is, and what the other is likely to do. In effect, this then also creates the self (instructor), or the us (the instructor and the third student who is not part of the other) as the ones who are not part of the constructed others. If "they" are not part of the "wrong doing" persons, then they are likely to perform this action differently.   This interpretation is supported by the sequentially situated nature of what came before the explanation of doing it the "Joburg way" (line 7). In line 4-6, the immediate predecessor of line 7, it is explained how "everyone" performed

the backward roll in a correct fashion. This would mean that the Joburg way of doing it (wrong) does not stand in isolation, but is set up against a correct way of doing it, as well as the ones who do it correctly. The others do not stand in isolation but are contrasted with everyone, in such a way that it weakens the others' footing when it comes to the backward roll. This example seems to adequately illustrate the importance of taking into consideration the sequential organization of talk in trying to understand what is transpiring.

In addition to the metaphor being constructive of the other, it was also constructive of the quality of the other. The question previously asked of how the instructor draws upon them, seems to be answered by a combination of what was said and how it was said. The condemning nature of the comment combined with the comical tonal delivery and metaphorical characteristic seem to come across as an insult, undermining and refuting not only the actions of the other but directly the other's self. Therefore, there is not only an "other" being created in opposition to "everyone" (line 6), but also that the other is inferior with regards to the activity at hand.

When working and interpreting from a discursive position, the interpretation of line 7 would have to be supported by linguistic evidence. The researcher means that the student's orientation in line 9 is representative of such evidence. The laughter that follows in line 9 came from one of the two students from Johannesburg. When one considers laughter as a reflection of cognition, it can be seen as a reaction to feelings of happiness, amusement or that something was thought of as funny. However, this research wants to see people's actions as an orientation to what came before it, and thus situated within a sequence of utterances and actions. Also particular to this research, the utterance is situated within an institution, which brings certain practices (e.g., teaching, learning, listening, attending, etc.) into play and places people of certain positions opposite each other (instructors vs. students). If one considers the laughter in this manner, one sees that the laughter was a response of a Joburg student to the instructor who described in an animated way how Joburg people do a backward roll. The laughter can

then be seen as an acknowledgement of the statement. Simply that the Joburg student overtly orientates himself to the utterance then is already significant. It can also be contrasted with the first section where the "normal" way of doing a backward roll was described, and was not followed by any orientation from the students whatsoever.

The instructor continues in line 10 to 13, and the manner in which he delivers the utterance describing the Joburg way of doing a backward roll, conveys it in two ways. Firstly it constructs their activity as wrong. According to Peters (1995), the word "but" is a marker, indicating to the listener that a different account is about to follow. This is evident when one refers to the previous extract and how it is opposed to the current section with an emphasized "BUT" (line 7). It seems that the instructor draws upon two devices to give credibility to his statement. First of all, as was mentioned before, the instructor is just that - the person in charge of the situation; the person who the students are dependent on for knowledge; the person who knows, as opposed to the students who don't. Regardless then of whether or not his statement is "true", it is difficult for the person positioned as a student opposite an instructor to openly refute a statement made by that instructor. It seems that the instructor overtly "advertises" his credibility in this regard in line 11: "…believe me they do". Furthermore, the instructor draws upon some form of a previous experience in line 17 to 18, to give weight to his statement. It is a very vague statement of having experienced it himself, yet having experience in this regard (as opposed to students who obviously have none), together with his position as an instructor makes for an irrefutable statement delivery.

Secondly, it is delivered with suppressed laughter, interpreted by the researcher as possessing a rhetorical nature. The content is obviously condemning but also insulting to those it discusses, especially when the metaphorical and tonal quality of the delivery is considered. However, when delivering such an insult the conversationalist will inevitably run the risk of potential reprimand. In order to counter such a response, it is delivered in a fashion that strips it from its seriousness, and consequently of the option for

the receiver to react to it as serious. The metaphor seems to be constructed and delivered not purely as an insult, but with a humorous quality. Barnes, Palmary & Durrheim (2001) also note laughter (or suppressed laughter) as a rhetorical strategy intended to elicit laughter from the listener, especially when there is being drawn upon "isms", for example racism (in this instance the segregation of Joburg people). Once again this is said with linguistic evidence as support. The laughter in line 14 once again came from the same student, and his particular response (laughter) lends itself to the manner in which the statement was delivered (humorously).

Also regarding the situatedness of the joke, Radcliffe-Brown as cited in Perinbanayagam (1991), asserts that a joking relationship is one in which one person (the instructor) is permitted to make fun of the other (student/s), who in turn is required to take no offence. Here we can also see how an uneven relationship where the instructor possesses greater authority, contributes to permitting him in delivering such a joke. Perinbanayagam (1991) supports the researcher's interpretation of the joke possessing an insulting quality. He describes the joke as a discursive act with a peculiar combination of friendliness and antagonism. In any other context it would express and arouse hostility. Yet, the training context is in favour of the instructor exhibiting such a device, considering that the context physically and (in this case) also discursively "belongs" to the instructor. It thus becomes clear how delicately the instructor structures his talk when "things gone wrong" are being constructed. Note for example the increase in pauses from line 10 to 12. These have been shown to be indicative of trouble talk (ref).

Perinbanayagam (1991) also explains the joke as a form of familiarity, which permits disrespectful behaviour, in this case of two students. Furthermore, Perinbanayagam gives an explanation, which neatly captures the essence of the joke in this extract. The joke is a playful insult – a combination of friendliness and antagonism delicately blended and balanced, and becomes a method of ordering a relation, which combines social conjunction and disjunction. It thus becomes apparent that the joke, containing the insult, is

not only operative in severing the self from the others, but also expands the relationship in a different way.   At any moment in the assembly and presentation of such a joke, the other can refuse to respond as anticipated. To refuse to take a joke is, in effect, to refuse to accept a relationship and thus to deny the identity that the content of the joke may define and attribute. In creating the joke, the instructor needs to estimate with precision the caution and liberties that he can take in the relationship.   Should the joke overstep these boundaries, it can undermine the self of the other, becoming mocking acts rather than playful games.   In this point of time, the joke is then also an opportunity for conjunction and acceptance of a relationship, and brings familiarity to the relationship.

Thus far it then seems that the instructor has been successful in doing four things with his statement.   Firstly, he has constructed not only the wrong way of doing the backward roll, but also the identity of the other who does it incorrectly.   The design of the insult seems to subtly ascribe a "deviant identity" to the recipient.   Secondly, he has used his position as instructor as well as his previous experience in this capacity to make this a believable construction.   Thirdly, he has created acceptance (or at least a lack of non-acceptance) for his construction by countering any retort such as a contradiction, rejection, or rebuttal, which his statement could potentially have elicited.   Finally, there is a negotiation of the relationship between instructor and student, through employing and accepting or not accepting the joke.

What has thus far been explained as a joke could also be seen as teasing. Drew as cited in Hutchby et al. (1998) explains teasing and how conversationalists respond to this.   Drew describes a 'continuum' of responses in which there are four types: 1) initial serious response (what he calls a po-faced response) and then prompted to laugh by others, but returning to po-faced rejections; 2) simultaneously laughing at the tease and rejecting its proposal; 3) laughing acceptance, followed by serious rejection of the proposal in the tease; 4) going along with the tease.   In this case it

seems that the recipients go along with the tease as we find only laughter as a response.

Drew also notes that, overwhelmingly, there is some component of po-faced rejection of the tease. We must then ask why, in this case, was the response not po-faced?   In this regard, it is suggested that two other factors contributed to the response, the first being (once again!) contextual in nature. Here, not only in terms of the instructor's authority over the situation and the other conversationalists, but also in how the insult is directed at two instead of all three students. In directing the insult at only two of the three students it differentiates not only himself, but also the other (third) student, from the teased ones. He thus attempts to align himself with one of the students, making it a two-against-two positioning instead of three-against-one, reducing the chance of being outnumbered.

Secondly, as Perinbanayagam (1991) agrees, the instructor's extended elaborations with few pauses and possibility for interruption seem to silence the students. We see, for example, in lines 8-10 and 13-15 that there are no pauses during the laughter and that the instructor carries on speaking regardless. In effect, this then leaves little chance for the recipient to add rejection as a response. The student would have to deliberately stop the instructor and artificially insert a rejection of the insult, as there is no natural turn taking that allows a response from the recipient. If the student were to give a response, it would be out of place and stand out as an interruption of the person of authority, and could thus further jeopardize his/her already "deviant identity" (as discussed earlier).

Drew goes on to explain that, while recipients often exhibit that they can see the joke (as in this case), the po-faced response is designed to counter the implication of a negative identity. We can see that by leaving no room for countering this, it is very powerful, not only in preserving the instructor's self, but also the newly constructed negative identity of the other's self.

Furthermore, Drew implicates scepticism and the suggestion of negative qualities about the teased person (as was suggested earlier), in acting as a subtle form of social control for the deviant behaviour (such as incorrect performance of an activity). Extract 2 also seems to be a form of accounting for error through insult. This means that the wrong act (or performing the wrong act) has implications for the self. The activity is clearly constructed in terms of the pleasantness as well as the danger of your (wrong) activity *for others* (line 15 and 18), instead of yourself. It seems that the insult operates as a consequential deterrent or threatening factor – if you (the other) do this you will be insulted by "everyone" (line 6), and your reputation will be questioned. In agreement, Perinbanayagam (1991) also states that the insult as discursive act, whether true or false, can bring an audience to question the victim's reputation.

Let us for a moment reflect back on the metaphor as defining not only the activity, but also the person performing it. In total contrast, it can be said that the metaphor is employed in the objectification of the people it draws upon. The described "others" are described in a fashion that depersonalizes them as objects (dominoes), and that are (like dominoes) also particularly similar in appearance (adding to further depersonalization). Also in terms of their actions, it seems to be an automated chain of events that does not involve any thinking or planning (if one compares it to pushing over a row of dominoes). This depersonalized description of involuntary acts can once again be seen as possessing a rhetorical function. The construction of the incorrect action as impersonal and involuntary works rhetorically in decreasing the possibility for the receiver to "take it personally" or "feel responsible" and consequently reacting with a rebuttal. In summary, it seems that an insult combined with humour, was employed as a combination of undermining and rhetoric.

What does the instructor do with the refutation of the other? Perinbanayagam (1991) explains that when the relationship between the joker and the recipient is an uneven one (such as instructor-student), jokes become instruments of domination. Perhaps it can then be hypothesized

that by weakening the other's footing, it strengthens the self's. If he makes the other look ridiculous, then his own opinion might be regarded more strongly or credible. It is interesting but also meaningful that he delivers the insult and directly after that a serious message about the danger of this activity. Once again the specific sequencing of what is said becomes important for interpreting events. Perhaps, by undermining the other, the self's statement will be taken more serious and have more credibility and truth. If this is so accepted, then the credibility of the instructor seems to be of greater importance than the activity itself. In short it can be said that an explanation of the activity is used in setting up the authority of the instructor.

The contrasting of the accepted way of doing the activity with the other's wrong behaviour, can also be seen as possessing a rhetorical quality. The production of an account of what is unacceptable and unpleasant, is seen as part of the larger construction of what *is* acceptable, and is thus a manoeuvre to support the prescribed behaviour, and defend its prescription against criticism or doubt.

With regards to the institutional situatedness of extract 2, the reader can easily note how the talk that occurred was relevant to diving, and was made relevant to the context in which it occurred, namely the training setting. As has been previously mentioned though, it cannot be assumed that the context determines the nature of talk and thus the contextual relevance of talk cannot be assumed. More importantly then, as was clearly illustrated in the above extract, is how the instructor drew upon personal characteristics (such as place of residence) in the construction of a diving related activity, making the institutional activities relevant not purely through orientating to or employing diving related phenomena, but also making non-diving aspects relevant.

Extract 3

19   ↑when we count one- two- three- go- >fall off the boat<.

20   (0.9) IF you have a problem (.) let's say you're not ready

21   your mask you're unhappy with your mask anything youf-

22   there's a problem (0.8) ok and the count goes >one two

23   three ↑gö<(.) pgg(.) >you sit in the boat<. alright there's,

24   (0.6) now the skipper will turn around and he's like

25   ↑UUUH! you! ↓eeeeh! ↑UUUH! and you say my!

26   ↑m:sk! is! lea:ki:ng! or whatever the- alright we'll help you

27   out we'll(.) help you sort out the problem (1.3) we turn the

28   boat around (we'll) drive back to the spot ok (we'll) make

29   sure ev- all the divers and everything is aw:ay drive out

30   there count >one two three go and you fall off the boat<.

31   (0.4) alright do:n't fa:ll two: or so seconds after the count.

32   you will land on top of someone. (0.6) ↓alright so stay on

33   the boat, if you have a problem ↑stay on the boat, the

34   ↑boat will turn around and drop you on a second count.

35   (1.1) very easy.

Again, first of all, what immediately attracts one's attention in this extract is the use of descriptive techniques as in extract 1. It can be found across the whole of extract 3: First, in line 21 where the instructor makes a false start again, and adds in an emotion of unhappiness to the fact of the mask being a problem (we can see here how emotion is used discursively as a descriptive technique in providing clarity of an explanation). Second, in line 23 the instructor again uses what one might call sound effects to illustrate an action ("pgg"), drawing upon the listener's senses and imagination as was discussed earlier in extract 1 (and is also relevant to extract 2 line 8). Finally, in line 29 the instructor makes another false start ("ev-"), and elaborates on "everything" to also include divers. In this particular case, the description seems (in addition to the functions of description mentioned in extract 1) to personify the explanation, colouring the picture with people instead of "everything" (which is not much of a picture at all).

Secondly, we find another similarity to extract 1, as well as to 'Activity: Free-flowing Regulator'. In line 20, the instructor again employs the word "if" as conversational device. Again, a condition is set up that is followed by certain

consequences. Having a problem will lead to certain outcomes. However, after the word "if" in line 20, the awaited consequence does not arrive until line 24 ("now the skipper will…"). Firstly, note that this consequence is again a negative one, as in all the other instances. Secondly though, negative in this instance means being ridiculed, and very explicitly so if one reads lines 24-26 and line 25 in particular. Again it will be suggested that such a condition and its consequences motivate the recipient to listen carefully when advice is given on how to avoid such consequences, especially when the consequence has implications for the person's self.

The condition and its consequences say to the listener that if he/she is to encounter a problem, he would be scolded or ridiculed for it. Perinbanayagam (1991:133) describes scoldings as "those interpersonal discourses one party addresses to another indicating a failure to meet certain standards and expectations, and are typically given by those whose structural position in a relationship [such as a skipper in command of a boat] defines their right to administer them". He also states that scoldings, in their very construction and articulation (consider the notation of the scolding in line 25), seek to convey both the nature of the relationship within which the scolding is being presented, the self that is doing the presentation, and the degree of emotionality involved.

In this instance it gives an opportunity for the instructor to assert the self of "the skipper", a representative of all skippers that the student is still to meet. He presents and defines the skipper's authority, and shows that he/she is not only the titular commander of the boat, but also a functioning one. Note the heightened pitch of voice as well as the loudness thereof. This, together with the animated intonation that displays both the skipper's disapproval and the diver as incompetent, define the relationship of superordination and subordination as well as a certain indifference to the esteem of the other's self. We can see now that, throughout the different transcripts, the instructor not only positions himself as authoritative with regards to the students, but already positions them in relation to significant others in the diving industry. It is interesting to note that with regard to position of authority, the instructor sides

himself with "the skipper", but at the same time doesn't align himself with the *manner* in which "the skipper" enforces his position through scolding.

An additional particular to note about lines 19-26, when the problem situation is explained, is that it is explained in the present tense, as opposed to the rest of the extract, which is (as one would expect) in the future tense.   The researcher's explanation for this is that narrating an event in the present tense as opposed to the past or future tense, would be similar to viewing a film (present tense), and telling someone about a film that you've seen or being told about one that you're going to see. Narrating the problem situation in the present tense then seems to make it more real to the listener; in the listener being able to "see him/herself there". Once again the impact of a description of events seems to be important to the instructor.

Regarding making talk important or impacting, in lines 19 and 30, and partially in line 22-23, the instructor repeats his instructions ("one, two, three, go, fall off the boat", and "sit in the boat" in line 23). Not only the repetition, but also the tonal quality of cutting off words and an increased speech rate accompanying the instructions, seem to give special importance to these utterances, and the instructor's urgency for them to be well heard and understood.

In line 35 we find two interesting phenomena. The first is an extended delay (1.1 second), the second longest of the entire transcript. Second we find the utterance "very easy", of which, given the context of encountering and solving problems, the mere content of the utterance doesn't seem to fit.   The researcher will offer an explanation which sees the utterance "very easy" as containing the function of packaging the explanation and method as a neatly tied up whole. The delay is seen as a supporting resource in that it severs the utterance ("very easy") from the rest of the extract, separating it from the foregoing talk. "Very easy" is then not *part of* the talk that came before it, but is *about* the talk. It delivers a concluding comment on the talk, but also in a very specific way. It not only "wraps it up" but more specifically wraps it up as being not difficult, quite simple, and unproblematic. It seems to raise an expectation of how the previous talk should be taken up by the receiver.

In line 32 we find the word "so". As in 'Activity: Handling Decompression Sickness', this word seems to demarcate a conclusion, leading the conversation towards an intended outcome. The word "so" is followed by a reformulation (lines 32-34) of everything that has been said before it (lines 19-32). It takes an elaboration of what one should do and summarizes it into a "quick-fix" method. It seems then that this summary of what has been said, adds to the simplificatory function of "very easy" in line 35.

Once again the utterance presents itself with a possibility of serving a rhetorical purpose. The foregoing talk presents the receiver with possibilities of error and problem concerning the backward roll, decreasing the pleasantness of the activity and the attractiveness it might hold for the receiver who knows nothing of the activity. Take into account the broader context in which training occurs. It is primarily about training, but it is also a course for which monetary compensation is gained, as well as a convincing of these and other people to take up the diving activity. By finally packaging the activity as "very easy" it reduces, not the potential of disliking the activity, but responses indicating an increased dislike in the activity, or an apprehension for it in the light of the problems constructed around it. In this regard, the instructor produces an extreme case formulation, which takes the utterance to its extreme, making it increasingly difficult to question or undermine the statement. In this case, the activity is not just easy, but "very" easy, highlighting its persuasive orientation.

The motion for a rhetorical function, again, has to be seen in the light of the instructor's position as authority in diving. In conjunction with this position, such a "wrap up" might attempt to evade any possible attempt at disputing the instructor's prescribed way of coping when encountering a problem, and consequently questioning the instructor as provider of valid knowledge. The abovementioned extreme case formulation also aids in this respect to provide an effective warrant for accepting the evaluation of the activity as "easy".

As a whole, extract 3 seems to display the instructor as working hard towards constructing the account as factual and real. The word "if" marked the start of

the account of when an exception to the standard practice of the backward roll occurs, and from there on numerous devices were employed in making how one should behave safely in the instance of such an exception, convincing. In line 20-21 there is the use of a three-part list, described by Potter (1996) to function in displaying what is said as things that happen, and that are not out of the ordinary. In line 22-23 and 25-26 we again find the use of active voicing, which makes the utterance more real, and hard to dispute in the light of it being displayed as if the speaker actually was there. In line 24 the instructor uses the word "will". It displays the account as considerably more definite (as opposed to, for example, might or may), and is explained as a modalizing term in Potter (1996). Throughout extract 3, as previously explained, we find the use of "we" gaining consensus for the account, and together with the systematic narration of how things "will" be handled from line 26 to 30, the account is constructed as standard and something always done by someone in a problematic situation.

Broader Characteristics: The Extracts as a Whole

Finally, the researcher will consider the broader characteristics of the talk, by looking at defining patterns throughout the three extracts. First and foremost, we find a continuous use of repetition by the instructor. The first such repetition is of the word "ok", used in lines 4, 5 (shortened "k"), 18 (flattened "ekay"), 22 and 28. Secondly the word "alright" is repeated in lines 6, 13, 17, 18, 23, 26, 31, 32, and twice in line 11. These two words will be considered together as both performing a confirmative function. When seen in this light then, it would mean that the confirmation was repeated 15 times throughout the construction of the backward roll.

One can see that this type of confirmation is never orientated to. Therefore we cannot consider the confirmation as the type which asks for confirmation of having received the information ("ok") or agreeing with the information given ("alright") as one would possibly expect it to function, because we do not have any proof (in the form of orientation from the students) that this was the intention of the words "ok" and "alright".

The repetitive nature with which the words were delivered could perhaps serve to form a different hypothesis on the function of these words. The repetition seems to have a compounding effect on, not only the words (ok and alright) themselves, but also on the utterances preceding these words, with even greater effect when preceded or followed by a delay (such as in lines 4, 5, 6, 18, 22, 31, 32, and in both instances in line 11). Metaphorically it could be compared to "nailing down" something, where the nail is hit in or steadied with each consecutive repetition. The repetition can accordingly be seen to possess a controlling function on the information in terms of fixing or securing it.

Repetition then seems to be a main device used by the instructor in the construction of the backward roll, specifically in a compounding way that tightly establishes the information. Moreover, where there is no or little delay that would suffice an opportunity to respond, it could be of rhetorical nature. It could possibly function in ensuring no potential for a negative response, or any response that could dispute the information, thereby weakening the steadfastness thereof.

The instructor makes what seems like a series of utterances throughout the dialogue that could be described as assertions. Perinbanayagam (1991) defines assertions as statements voiced in a manner that implies that they stem from an authoritative, privileged, and knowledgeable foundation. In addition to the instructor's institutional role as knowledge provider and authority on diving knowledge, the use of repetition can also be seen as a device to further ensure that utterances become assertions, meaning that they become factual statements that should be hearably convincing. Even in the description of the steps taken to meet the contingencies that might arise from these assertions, repetition is once again used (line 32-33: "stay on the boat…stay on the boat").

Likewise, as assertions seem to be *constructed from* positions of authority, it seems in this case that repetition also aids in the assertions being *constructive*

of the instructor's authority. Consider line 11 where the instructor asserts that Joburg people land on top of each other when doing the backward roll ("They do it. Believe me they do it"). He not only draws on himself as the authority on this knowledge ("believe me"), but also uses repetition in securing the assertion that should be believed, thereby further fixing his position as authority and his assertions as valid.

Note also how he chooses the word "believe", instead of perhaps "I think they do" or "I've heard they do". Believing is shown by Latour and Woolgar as cited in Potter (1996) to be a resource, which is hierarchically more significant in displaying an activity as solid and factual, and also to be treated as unproblematic and standing alone without requiring further evidence. Other devices such as the extreme case formulation ("all" line 12), aid in strengthening the argument. Potter et al. (1987) describes this device as a statement, which takes whatever evaluative dimension is being adopted to its extreme limits. They are used to strengthen arguments or as displays of investment in the argument.

The researcher thought that the instructor did, however, work rhetorically in managing this investment in the position that is taken towards Joburg people. Be reminded that two of the students are from Joburg. Note the repetitive use of the word "they" throughout the account of how Joburg people do the backward roll. This seems to make the account far more impersonal and vague. It is more difficult for the two students to take offence, if there is being spoken of "them" instead of, for example, John and Mary. In this way, should either of the students take offence, it would reduce the conversationalist's accountability considerably. It allows for the instructor to take different positions on the account and thus allows him a degree of manoeuvrability.

A second hypothesis for explaining the work done by repetitions of "ok" and "alright" might be found in the phenomena of turn-taking. As is evident, not only in this transcript but all, is the absence of interactional turn-taking sequences. It is suggested that the words "ok" and "alright" are used by the instructor in creating this lack of turn-taking and allowing him to keep the floor,

i.e. not handing over the conversation for a relevant next. It can thus be seen as a continuer, such as 'mm hm', 'yes' or 'right' (Hutchby et al., 1998), which displays the instructor's understanding that a possible transition-relevance place may have been reached, but extends the sentence into the beginning of another. In this way the continuer acts to "bridge" turns when there is a possible opportunity for someone else to take the floor. One can also note the pauses (although not very long ones) preceding many instances of "ok" and "alright". Returning to the explanation given by Jefferson as cited in Muller (2004) on the inviting function of pauses, and in the light of no visible orientation should this be the case, it can be speculated that the instructor uses "ok" and "alright" in concluding the (unused) opportunity for participation and (as stated above) as a continuer. In other words, "ok" and "alright" function as if to say: "you've had your opportunity to respond, and now we're moving on".

A final hypothesis by the researcher regarding the function of repeating the words "ok' and "alright" could lie inherently in these words by simply seeing these words as verbs. This means that instead of just considering the word as a passive addition to the talk, it can be considered as attempting to do to the talk that which the word in itself suggests. In other words the word "ok" would make the preceding or following talk ok, and similarly the word "alright" would make the surrounding talk alright. When applying these two words to the talk in this manner it seems that instead of, for example, checking with students whether they understand what has been said, the speaker himself puts the stamp of approval on the talk. Instead of allowing for an opportunity for students to raise doubt about being "ok" and "alright" with what is said, the instructor simply *makes* the information "ok" and "alright" independent of the receiver. Rhetorically one can see how this minimizes the risk for the instructor to face a "comeback" on his explanations, and a consequent questioning of the ok-ness and alright-ness of the information that he gives.

The construction of the backward roll must duly be seen in playing a role in the broader construction of safety. The safe execution of this activity contributes to the diver's safety in general. Therefore, the construction of the backward

roll must also be seen as having implications for the construction of safety in general. It will accordingly be concluded then that safety is being constructed, in this instance, through employing repetition. The repetition seems to function in securing the information needed to ensure safety, i.e. a "making sure" or "nailing down" function, also regarding safety.

A further occurrence of repetition appears in extract 3, in both lines 26-27 and 32-33. In lines 26-27 the instructor repeats the words: "we'll help you" and in lines 32-33: "stay in the boat". As has previously been stated with regards to repetition, it again seems to perform a compounding function, "fixing" the information by reiterating it. This instance of repetition, however, differs from "ok" and "alright" in that the repetition does not occur before or after the given information, but in this case it is the information itself that is repeated. The first function that the repetition of information could be said to serve, is that of importance making. The repeated pieces of talk are so to say given more "exposure" and could therefore aid in demonstrating the greater importance that the specific utterances hold. Therefore, receiving help as well as staying in the boat seems to be of magnified importance. This seems to be the case especially in relation to handling problems occurring during the backward roll, when the context within which these utterances were made, are considered.

Another interesting phenomenon that arises when one considers the three extracts as a whole, is the manner in which the instructor aligns himself with the actions he describes. In line 5 the instructor explains for the first time how the activity should be conducted, by explaining that "the skipper" will come and do a count. However, later on in line 19 he describes the ones giving the count as "we" ("so when we count one"). Furthermore, in line 24 he returns to speaking of the person on the boat as "the skipper", and finally in line 26-27 he again refers to "we". A question that one may ask is: "What does the instructor accomplish by using different references to the same role-player?"

The researcher would like to answer this question with the following interpretation. Consider the description in line 5, and simultaneously keep in mind the institutional situatedness of this utterance. This is an explanation

given as *the* way to do a backward roll. It is put across as a prescribed and standard method in the context of training, and it can be imagined that the instructor would want the students to accept this method, as it is his duty to teach them. By not aligning himself with this method, it is argued that it gives the statement more objectivity and consequently greater validity. If the instructor had positioned it as a method that *he* used, it would seem more subjective and not as representative of the broader population. However, when "the skipper" uses the method, it seems to display the method as objective and unbiased in its prescription, as well as representative of a *group* of people (skippers).

However, once the method has been set forth, *and* contrasted with the danger and unpleasantness of not doing it according to the prescribed method, the instructor aligns himself with the method (line 19, "when we count"). Once again we can note the sequential importance of talk, where a preceding account of error allows the instructor to align himself with the correct way of performing the backward roll. The word "we" can also be seen as significant for constructing the account as standard, with "we" providing consensus for performance of the activity and the way in which it is performed.

An additional form of alignment that supports the alignment with performing the activity correctly can be found in line 17-18 ("been there seen that"). It seems here that the instructor aligns himself with the unpleasantness and danger of the incorrect performance by telling of his own experience. By relating to this viewpoint through personal experience it seems that the instructor not only aligns himself with the danger that inadequate performance can cause (and consequently distancing himself from such performance), but it also supports the proposed alignment in line 19 with the prescription for correct performance. In passing, note the specific choice of words "seen that" instead of the commonly found "done that". It could be speculated that in only seeing that and not having done that (i.e. incorrectly performing a backward roll), it functions in maintaining the instructor's superior self as the one who is entitled to make claims about proper deportment. "Done that" would imply having also

done unsafe things, and would probably be defended against by a person with an interest in safe diving.

Following in line 24, the instructor returns to referring to "the skipper". Two explanations could possibly account for this occurrence. First, the reference to "the skipper" is used within the context of describing a scenario where the backward roll is performed inadequately. As we have seen before how the instructor aligns himself with the prescribed way of doing this activity, it would be expected for him *not* to align himself with a description of an inadequate performance on this activity. This is a clear example of what Potter calls "deviant cases", and illustrates how important deviant cases are in supporting trends (although this is not always the case) in conversation. The fact that the instructor *did not* align himself with the description in this instance further supports his alignment in the previous description.

A second possibility could relate to the manner in which the "problem situation" was put forth. The animated way in which the instructor narrates the situation, especially in line 25-26, clearly brings it across as ridicule or what Perinbanayagam (1991) calls 'scolding'. "The skipper" attends to the diver's problem by means of scolding the diver. By not personally aligning himself with this way of handling the problem, he seems to attend to the risk of disapproval but at the same time still succeeds in bringing the possibility of ridicule or scolding across for inadequate performance of the activity. It is not a specific or known person employing the ridicule, and therefore the potential disapproval of the ridicule is rendered directionless.

Once again the matter of deviant cases are supportive of the final alignment in line 26-27, where the instructor now aligns himself with a description that might seem similar to the one in line 25-26. This is a description that conveys the same content (the diver having a problem, and someone attending to the problem), yet the manner in which it is attended to, in the second instance speaks of "helping" instead of ridicule. Here the instructor aligns himself with attending to the problem, as the description from line 26 onwards is markedly more neutral (and even positive) with far less potential for criticism (and even the possibility of praise).

Additionally regarding "helping", it seems to be not only more positive as described above, but brings us back to the positioning of the students or "wrongdoer". It seems to implicate the one who fails as the one in need of help, and this person will receive help from a superior helper. The instructor then aligns himself not only with a more positive identity, but also a more superior one in opposition to the students, specifically the incompetent student. Again it defines the other (and the incompetent other), and at the same time the self (the commiserating helper).

4.2   Activity: Free-flowing Regulator

Description: The mouthpiece from which the diver breathes air from the cylinder is commonly known as the "regulator" as it regulates the amount and pressure of air that is supplied to the diver on his/her demand. It might happen, due to various reasons, that the regulator "free-flows" and thus continuously supplies air irrespective of the diver's breathing demand, making it almost impossible for the diver to breath from it.

Instructor:

1 To prev:<u>ent</u> it (.) check your equipment before a dive. (0.2) if
2   you >check your equipment you open it up you make sure
3 everything is <u>wor</u>king<,(.) chance of that happening is <very
4   very small> alright less than one percent. °'kay°, ↑<u>but</u> it might
5   happen its ↑<u>diving</u> equipment, °okay°, I always ↑say if
6   someone can ↑make it someone else can ↓break it. (0.2)
7 ok.(.) so ↑<u>always</u> check your equipment(.) before ↑you(.) go
8   for the dive- alri:<u>ght</u>.

From line 1 it, first of all, becomes clear that this activity is constructed in the form of prevention, and talk about this activity is made relevant to the prevention thereof, as opposed to reacting to it and doing something after it has happened. It comes across as an account of convincing, giving the students an account of why they should prevent this activity.

Throughout this extract we find a shifting of responsibility regarding the prevention of a free-flowing regulator. In line 1 it is clear that the diver should take the responsibility for checking his/her equipment. The word "if" (once again) sets the checking of equipment by the diver himself as a condition for the prevention of a free-flowing regulator. However, in line 3, the instructor performs an evaluative action with his statement of how effective this action would be ("the chance of that happening"). The instructor gives a quite exact percentage of the chances of having a free-flowing regulator if the recommended procedure should not be followed. The instructor once again draws upon two extreme case formulations, namely "very very" small and "less than" one percent, so as to possibly warrant and give credit to the recommendation (and possibly credit to his authority on the subject), almost serving as a guarantee for performing the condition. An interesting observation in lines 3-4 is how the speech rate supports what is being said – it is not just very very small, with "very very" employed as an extreme case formulation, but the utterance is also produced "very very" slowly, enforcing the extremity of the utterance.

However, there seems to be a shift in responsibility here. The student is still responsible for checking his/her equipment, though should this recommended procedure fail in ensuring the prevention, the responsibility would resort with the instructor for guaranteeing such prevention. It seems that the instructor orientates to this shift in responsibility, seen in his attempt to repair it by means of a disclaimer. This is demarcated by the "but" in line 4. The extreme case formulations and consequent guarantee is countered by means of what Potter et al. (1987:48) define as a disclaimer. They define a disclaimer as "…a verbal device, which is used to ward off potentially obnoxious attributions". In most cases the disclaimer is used when the speaker is aware that what he/she is about to say may sound unacceptable, and therefore precedes the statement with a disclaimer. An example would be "I am not a racist but…" However, in this case the disclaimer seems to follow the utterance, which has the possibility of assigning responsibility to the instructor for making the statement, thereby assigning blame and bringing his credibility into disrepute should the statement fail.

By providing a guarantee (both extreme case formulations) for the condition that he sets, the instructor puts his credibility on the line by opening up the possibility, not simply for fallibility of the recommended procedure, but specifically the fallibility of the guarantee he as authority on diving has given of that procedure.   It then seems that he attempts to ward off this responsibility for his claim (especially in the light of the possibility that it might not be so), by means of a disclaimer, which in this case seems to be the giving of an exception – "it might happen", line 4-5. Once again responsibility for preventing a free-flowing regulator is re-assigned. This time it seems that diving equipment is taking the blame for possible problems. In line 5 the instructor constructs the exception (and disclaimer) as diving equipment ("it's diving equipment"), and the failure thereof being the reason for exceptions to the guarantee he has given.   He illustrates a lack of control over this exception that could nullify his "less than one percent" guarantee, making it general and unspecific by using the word "someone" and "someone else" (line 6).

This also seems to function as some sort of pre-account (what might happen), which attempts to ward off anticipated negative attributions in advance of an act or statement (regulator free-flowing or someone presenting a different figure, e.g. three percent) that in future might bring his statement into disrepute. Also note in line 5-6 how the instructor again uses his credibility as knowledge provider in supporting his disclaimer ("I always say").   Moreover, drawing upon his authority as instructor also contributes to this authority, and therefore he not only uses his authority in the *construction* of certain utterances, but it is also *constructive* of his authority as instructor. Note again the extreme case formulation (always) used in accounting for events.

Supporting the above disclaiming act is the instruction in line 7 ("always check your equipment").   As Perinbanayagam (1991) agrees, the instructor as a discursive actor has an awesome status because he can fill the mind of the other and shape his self. The instruction then defines one participant as possessing knowledge about proper deportment of self in this particular situation and the other (students) as those who obey (or not). The instructor's

self is embellished by acts of instruction and enlightenment – signs that enhance the self. Accordingly the student's subordinate, recipient status is reinforced by the structure of the interaction (being instructed). The student can gather that he/she has to incorporate the instruction into his/her self if he/she is to receive approbation or validation from the instructor. This enhancement of the self and reinforcement of the "weaker" other through using an instruction, supports the strengthening of the instructor's footing in the whole matter of possible refutation, disrepute and blaming which he tries to ward off.

The instruction in line 7 functions similarly to the pre-account in lines 4-5 in being used before the act (free-flowing regulator) occurs. It admits that the act might in fact occur, and attempts to redistribute responsibility for this by instructing students to check their equipment. Potter et al (1987) use the example of taking a cigarette from someone else's pack. This could be highly offensive, but it can be transformed by the use of a request such as: "do you mind if I cadge one of your cigarettes?" The context of this example differs, but in both instances there is being countered for a potential "violation". If the act occurs, the person to whom it happens cannot say he wasn't told so. This instruction then counters the possibility of the instructor coming into disrepute when the "less than one percent" occurs.

It is interesting to see how the disclaimer, and subsequent diversion of responsibility to equipment, brings the assignment of responsibility full-circle to end up remaining with the diver himself. The word "so" in line 7 demarcates the leading of the conversation towards a certain intended outcome, in this case shifting responsibility and subsequent blame to the student instead of the instructor. The equipment as responsible object is again placed within the control of the student, ending off the conversation about responsibility for preventing a free-flowing regulator at exactly the same place as where it started, i.e. resorting with the student. A link has been made between equipment and the student in line 1, and the instructor reverts back to this link by using devices such as disclaimers.

When finally taking a broader look at this extract, it makes the researcher think of balancing scales. The student is urged to check his/her equipment in order to prevent the problem.   On the other hand the chance of that happening is very small.   On the other hand, again, it might happen and therefore the student should check his/her equipment. It seems as if there is a management of some tension here. The researcher will name this tension one between being careful and being comfortable. It seems that on the one hand, this account constructs the seriousness and importance of checking your equipment (see for example the extreme case formulation in line 7). The free-flowing regulator is an activity, which should "always" be checked up on. One can see how this construction gives it the possibility of being perceived as a probable unsafe activity. The instructor then counters for this possible perception (which could detract from the diving activity's attractiveness), by saying that even though this is the case, it doesn't happen often. There are thus two storylines, one that prompts the student to be careful of the activity and one that maintains the attractiveness of the activity, which has to be managed simultaneously.

4.3   Activity: Handling Decompression Sickness

Description: When a diver descends underwater, the pressure of the surrounding water will cause the nitrogen (which is an ingredient in normal air) that he/she is breathing to be dissolved into the blood system.   This excess of nitrogen in the body has several physiological effects on the diver, which ultimately impairs his/her ability to dive safely and responsibly.   This effect is called Nitrogen Narcosis. Decompression Sickness/Illness (DCS) is based on the same fundamentals as Nitrogen Narcosis, i.e. dissolved nitrogen in the body.   However, as opposed to Nitrogen Narcosis, which happens as the diver descends, DCS occurs when the diver surfaces too fast. This means that the nitrogen that has been dissolved on descend, will return to a gas during ascend, i.e. small bubbles will form in the blood system. When the diver ascends too quickly, these bubbles will increase to a size that will cause them to get lodged somewhere in the body, restricting blood flow etc. DCS is also commonly known as "the bends" or "bubble trouble".

Instructor:

1   What do you do if you have if you think you have
2   decompression sickness? (0.1) discontinue all ↑diving
3   >°because if you°< back into the water you take ↑in (0.1)
4   more nitrogen(.) and you already got too much nitrogen.
5   (0.2) <u>seek</u> medical attention >go to the doctor tell him
6   you've got decompression sickness< (0.1) alright DA::N[2]
7   you'll see there's DAN:=numbers everywhere. you phone
8   DAN if you're a ↑member you tell them you've got
9   decompression °sickness°(.) they'll fetch you(.) they put
10   you in a recompression ↑chamber. they take you ↑back
11   (0.1) ok (0.1) to a <u>depth</u> where those bubbles will go back
12   to a↑liquid ↑form, and then they take you up very slowly.
13   alright. a decompression chamber sech- ↑session(.)
14   works out about seven to eight hours. (0.1) °alright° to get
15   you <back-(.) up-(.)> chamber again. ↑<u>alright</u>. (0.2) SO if
16   you suspect you have ↑that, go to medi:<u>c</u>al(.) ↓attention.
17   ok and then <u>breathe</u> oxygen.

Note that, in comparison with Activity: Free-flowing regulator, this activity is constructed in the form of reaction. In contrast to preventing it, this extract is about seeking help afterwards. Also, the students themselves could handle the prevention of the free-flowing regulator, whereas this is a problem for which others should be consulted, constructing it as a hearably more serious problem than the free-flowing regulator.

This extract on handling decompression sickness is introduced by the instructor by means of a question (lines 1-2). There is, however, no reply to this question. When one considers the linguistic specifics by attending to the notations, it also seems that little room was left for students to respond to the question by means of an answer in the first place, and we also see that indeed the question was instead answered by the instructor himself. From the researcher's reading, most discursive literature on questions address adjacency pairs where a question is followed by an answer (e.g., Potter et al,

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[2] DAN: DAN is an abbreviation for Divers Alert Network. This organization specializes in providing emergency medical care to its insured members.

1987), yet no attention is given to so-called rhetorical questions. From a discursive position the researcher would want to return to the question of what work such a question could perform. Numerous interpretations could be given, and the researcher will offer a few of her own.

Firstly, and most visibly, this question in the way it was delivered effectively silenced the recipients. When attending to the situatedness of this question (once again!) in that it is a training setting meant to provide students with information that they do not already possess, one can note that it is more than likely that the students would not know the answer to this question, and most probably the instructor would be aware of this (as it is inherent to his duty to convey new knowledge). When taking this into consideration, it gives more meaning to the silencing function of the question. It might be that the question, and moreover this specific question, not only silences the recipients, but lays claim on the probability of not knowing the answer. The recipient is then firstly orientated to the probability of not knowing. Consequently, the effect could be similar as noted in the discussion on the backward roll activity, where an utterance is deployed as preceding further explanation, and to draw attention to that following explanation. It tells the recipient that it would be in his/her best interest to attend carefully to what follows.

Another interpretation of how the question was delivered, together with the repair that is made in line 1, is in constructing what warrants action. In reading the question, the researcher hears that a person does not need to have decompression sickness or be sure of having it, but that simply thinking it is cause for action. It seems to construct the notion of "better safe than sorry", especially if one looks at lines 5-6 and 8-9 where the person who "thinks" he/she has decompression sickness, should tell the doctor or DAN that he/she has in fact "got" decompression sickness.

With regards to what follows the question, the question seems to also have a certain "framing" function, relating to the talk that is about to follow. It frames the context of what will be spoken off, and restricts the range of possibilities.

More importantly to the recipient, it delineates what should be attended to when receiving the talk.

Further inspection of the question seems to reveal that in addition to formulating *what* should be attended to, there is also a formulation of *how* it should be attended to by the receiver. In line 1 we find that the instructor makes a false start by saying "if you have" and repairs it with "if you think you have". The replacement utterance seems to carry less certainty about having decompression sickness. The instructor's talk allows the student to think or suspect that he/she has decompression sickness, but does not allow for knowing it for a fact. In reframing the sentence in this way, it seems to reduce the student's authority on the subject of decompression sickness, and the question in its entirety thus also frames the *position* from which the following talk should be attended to.

There are, as there always are, more interpretations that could be assigned to the work that the question is performing. One more that the researcher would like to offer, relates to the fact that the instructor does not wait for an answer, but duly fills it in on behalf of the students. Regardless of whether one accepts the above assumption that students are receiving knowledge "which they do not already possess", the fact is that answers are being produced *for* them without the opportunity for them to do it themselves. This brings us back to the matter of positioning the listener (students). Compare this giving of answers to the helping in lines 26-28 of the backward roll activity. Once again it seems that students are the role players who are in need of instructors and similar figures to supply them with things such as help, answers, etc. It creates a relationship of a helper and "knower" on the one hand, and helpless dependent on the other. It thus defines the self of the other, as well as the conversationalist's self.

From line 2 onwards, the instructor himself is answering the question. The answers seem to be formulated as instructions. Consider lines 2, 5, and 7-8 – "discontinue all diving", "seek medical attention", "DAN…phone DAN". It seems that these instructions are delivered in a certain format, with an

instruction first, followed by an explanation thereafter. The question that arises from this phenomenon is what the instructor does with explaining his instructions.

Let's start off by taking the first of these instructions, namely "discontinue all diving" (line 2). In line 2 we find the word "because". This word is generally related to giving reasons. It thus possesses a justificatory function. Before going any further, let's continue to see this justification in relation to it being an answer to the question in lines1-2. Potter et al. (1987) indicate that dispreferred seconds in adjacency pairs of questions and responses, almost invariably include an account (instead of a simple yes or no). In other words, dispreferred responses are given by means of justifying the disagreement by providing information. In this case, the adjacency pairs look a bit different. The same person supplies the question and answer. One would have to admit to the possibility that this seems quite biased. When the person answers his own question it is certainly expected that it would be an answer that he prefers, as opposed to "normal" adjacency pairs where there is room for dispreferred seconds.

Should the recipient orientate to this, it would be understandable to find that he justifies his answer by, as Potter suggests, providing more information. However, in this case, the justification would not be of the recipient's dispreferred disagreement, but of the *possible* disagreements that could arise from the recipient's orientation to the speaker's answer being biased. This explanation then gives the term "rhetorical question", as it is used in everyday language, new meaning.

A second question could be: "What conversational devices does the instructor draw upon to aid him in this justification?" This question returns us to the word "because" in line 2 that was mentioned earlier. It indicates that what was said is about to be warranted by what is about to be said. This word then, first of all, demarcates the commencement of the justificatory process to the listener and attempts to orientate the listener to receiving it as such. Furthermore, we find that the instructor repeatedly makes use of

scientific knowledge in his explanations. In line 4 he justifies discontinuing diving by adding an explanation of the amount of nitrogen in the body. In lines 11-12 he also draws on scientific explanations (bubbles returning to a liquid form) to give credit to the instruction of phoning DAN. The use of scientific knowledge can then be identified as a device employed by the instructor in justifying instructions, by making them into scientifically supported instructions. This counters for disagreements, especially in the light of supposed bias as was discussed earlier, by transforming it into an instruction supported not only by the instructor but also by the entire scientific community.

Another form of countering for perceptions of bias can be found in how the instructions and their explanations are narrated, especially in the second and third instances of instruction in lines 5-6 and 7-12. These explanations seem to be formulated as advice given to the receiver (student) in relation to another party, for example the doctor or DAN. In line 1 it is about what "you do" (the receiver), and in lines 5 and 8 "you" (student) tells "them". Although the instructor not necessarily attempts to construct neutrality, it does seem that he distances himself from this advice, in not presenting himself as a stakeholder in the application thereof. Ways of handling decompression sickness is not in the interest (or disinterest!) of the instructor, and therefore it functions to counter the idea that the advice is biased. Even though the instructor works hard at bringing the instructions across in a certain way and to do certain things, he does not display a stake and interest in their execution (consider specifically the word "they" used numerously).

The researcher would now like to move on to the third instruction concerning DAN. Regarding line 8 "if you're a member", it seems that phoning DAN and therefore getting help from this particular caregiver is subjugated to the condition of being a member. The notion of membership when regarding the seeking of help comes to the fore. In a broader sense then, being safe means that you first need some endorsement and membership.

Now, let us review the different options provided by the instructor for handling decompression sickness. Discontinued diving, medical attention, as well as DAN have already been mentioned. Additionally, in line 17 the instructor instructs the students to "breathe oxygen". There are thus four options given by the instructor from which the person with decompression sickness can choose to handle it. In this regard, repetition once again draws one's attention to a point of interest.

When quickly reading or listening to this piece of talk, the instructions come across quite methodically, one after the other. There is an introduction (the instruction), followed by an explanation, and so it goes on for each instruction. However, on closer inspection, in line 16 the text presents itself with a repetition of "medical attention", which was of great importance to the researcher. As in the activity of the free-flowing regulator (line 7), we find the word "so". Again, it seems to have a leading function, making a conclusion, and leading the conversation towards an intended outcome and making it conclusive. The word "so" marks this utterance as the one that encompasses all the others, and at the same time excludes all the others in favour of this one. By simply repeating it more than the other options, it maximizes this option and places it in the position of holding greater significance. Potter (1996) also notes that repetition indicates an orientation to concern with the importance of an account. Medical attention ultimately prevails, at the expense of all the preceding options, and by repeating it and repeating it in a certain way, it finally gains the most importance. It is interesting to note that DAN, which at first seems to be a different or separate option, is also a medical institution. In the light hereof, and together with the repetition of "seeking medical attention", it builds a strong case for the account working to "medicalize" the handling of decompression sickness.

Throughout this extract there seems to be a lot of work done for making the account hearably factual and thus believable. Firstly, we find a number of extreme case formulations in lines 2, 7, and 12. Take the example of "all" in line 2. The researcher feels that the seriousness of not continuing with diving

is emphasized with the use of "all", and strengthens the argument for not diving when suspecting decompression sickness.

Secondly, in lines 5-6, we find what Potter (1996) calls a three-part list. The person should seek medical attention, go to the doctor, and tell the doctor that he/she has decompression sickness. This device has been shown to be used in constructing something as normal or standard, and so it functions in making the account given by the instructor one that is commonly practiced and therefore believable.

Thirdly, in line 14, the instructor makes use of specific numbers in his explanation of recompression chamber sessions. Similar to statistics, such numbers are not only hard to argue against, but also makes the consequences of decompression sickness factual to the listener. It is not indefinite or vague. If you are going to be under medical observation for seven to eight hours (not a few or some hours), then this must be serious. Together with the above-mentioned extreme case formulations, it also seems that in addition to the account being constructed as factual or believable, decompression sickness is also constructed as serious.

Finally, when considering lines 7-12, we find a very vivid description and narration of what happens when DAN is contacted. Edwards & Potter (1995) explain that the production of detailed narratives and perceptually graphic descriptions provide for a kind of sequential reliving of events, displayed thereby as coherent and believable. They create an impression of direct perceptual clarity, of "being there".

In addition to the interpretation of line 14 ("seven to eight hours") made above, the researcher would like to offer another explanation. When considering the whole of lines 13-15, there seems to be a management of authority again. Previous to these lines, the description has been constructed quite factually and distant from the instructor (with the repeated use of "they"). However, lines 13-15 display the instructor's own knowledge on the topic. Thus, even though he holds no stake in the execution of the activities, he is

knowledgeable on these activities, and in displaying this, strengthens his position as possessor of knowledge and being able in providing (factual) knowledge.

This narration might also be interpreted in another way. When reading lines 7-10, the account comes across as very methodical, almost like when you would give someone a recipe for baking a cake. The work that such a delivery accomplishes is debatable, but the researcher interpreted it as having a de-problematizing effect on what was said. It comes across as a no-nonsense, uncomplicated procedure, which is run through smoothly and without hiccups. It therefore seems to formulate the handling of the problem in an unproblematic way.

The last line (17) to be considered brings us to a formulation of an option for action ("breathe oxygen"), which is different in comparison to the other three. Discontinued diving, seeking medical attention, and phoning DAN were all accompanied by an explanation. Breathing oxygen, though, is not supported by an explanation and seems to stand on its own and for itself. It stands after the concluding comment in lines 15-16, and this, together with the words "and then" which indicates it as being after the other options, puts it aside from the other options. Both this position in which it is placed, as well as the manner in which it is delivered (i.e., without explanation), displays it as not optional and non-negotiable. The other options could possibly be chosen from, but after that choice has been made oxygen should still be breathed. It is left to stand for itself, and is not negotiated by the instructor. It is left as something that needs no justification.

CHAPTER 5
CONCLUSION AND RECOMMENDATIONS

5.1   Findings

This study set out to find how the concept of safety was constructed through language within the scuba diving training context. In an attempt to answer this question, a thorough analysis of talk that occurred during such a training programme was conducted. In moving towards an answer, the following section will be devoted to considering the characteristics of the instructor's talk, which emerged through the researcher's analysis. It should perhaps be mentioned again that these are a few of many interpretations that could be made, and some of many actions that the text presents.   Also, these interpretations are not presented as generalizable to some larger population, but remains within the context of person, time, and place.

Throughout talk of the three activities that formed part of the analysis, numerous devices and strategies were used to perform numerous actions. Yet, in the light of almost no orientation from other conversationalists to support these actions, the rhetorical nature of the talk became an important consideration, i.e. possibilities of how the instructor's talk could be orientated to, and how he possibly managed these. The situatedness of utterances, and particularly the institutionality thereof, was an important consideration for the researcher throughout the reading of the text. The most important features of the analysed talk will now be discussed, and will finally lead to the implications thereof for the construction of safety.

It has become apparent to the researcher how the instructor, in the light of the stake and interest that he (obviously) has in the activities, constructs the activities so as to manage this stake and interest. Firstly, it seemed important to the instructor to present his accounts as to be taken seriously, and accordingly used various devices and strategies in constructing it that way. These would include extreme case formulations, vivid descriptions (especially of problematic or incorrectly done actions), and impacting on the listener's

attention by tellings of bad consequences before producing an account of an activity. Safety was thus negotiated as to be taken seriously.

However, it seems that the instructor had more than just a single interest to manage. Regardless of where these interests or stakes in the conversation originated from, it was interesting to note how the negotiation thereof got done. As has been accounted for above, the instructor invested in the construction of the seriousness of safe (and also unsafe) diving, and being careful. Yet, there seemed to be countered for the probability of this account detracting from the attractiveness of diving. Throughout the talk then, there was a negotiation of safe and conscientious diving on the one hand, and on the other "don't worry it probably won't happen" diving. Safety is negotiated as procedures which should be adhered to, but which shouldn't be worried about. This has led the researcher back to diving literature, where the saying "safe diving is fun diving" often appears. Take this account from Dueker (1978:1): "Safe diving does not make diving less fun", as well as the following justification: "On the contrary, the safe diver can have more fun because he is not worried about a possible disaster". It seems that what is said in such literature, and more importantly what is constructed through the text, has been made explicit through this analysis.

Discussed above, were how certain devices such as extreme case formulations were used in the construction of problematic diving situations. However, these were also used in accounts of proper executions of such activities. Yet, the work that the devices were doing seemed to differ. Two particular strategies were related to accounts of correctly performed activities. First, the accounts were presented as normal and standard, something any diver would do and is the done thing in diving, giving credit and acceptability to the correct performance of the activity. Second, these types of accounts were put across as simple, either simplifying the correct execution of the activity, or making the handling of an incorrect executed activity simple. It was not only said to be very easy, but was said in a methodical, "run-of-the-mill" manner. Safety was constructed as normal and easy to do, and turns

one's attention to the hard work that was done to make correct performance convincing and accepted.

In addition to accounting for incorrectly executed activities, it was found that the character of a person performing such an activity was simultaneously constructed. There seemed to be a deviant identity being ascribed to such a "wrong doer", and also that such a person (even though they would be helped) would be subjected to possible ridicule or insult. As was also shown from literature (Hutchby et al., 1998), it is possible that such constructions may be formulated to act as mechanisms of social control to counter for the incorrect execution of activities, and thus safety seems to be constructed as something that could be socially controlled by superior others in the sport.

More generally throughout the analysis, there seemed to be a continuous yet less obvious negotiation of the self (instructor) vs. the other (student). As mentioned above, apart from running the risk of ridicule, it was also made clear that the person in a problematic situation would be in need of help and would be helped by others. This not only places the "wrong doer" in a dependent position, but also enhances the instructor and similar figures' ("we") self, as the helper of wrong doers. It also seemed evident to the researcher how the instructor drew upon his institutional advantage of being the one who possesses knowledge, and through his talk used this power to keep the floor, and only allowed students to think or suspect instead of know. It should be mentioned though, that suspicion was also used as a premise for action, consequently formulating acting upon a problem situation as "better safe than sorry".

This then brings one to the matter of footing. Through negotiating the self in relation to the other, there is a negotiation of footing. The instructor seemingly maintains and constructs his position of authority throughout his accounts of the activities (e.g., believe me, I always say, etc.). He uses his position rhetorically to defend refutations, and at other times he uses devices (such as telling of past experience) to maintain and enhance his footing as authority. The managing of footing seemed to be negotiated in terms of

correct and incorrect, knowing and not knowing and consequently instructor and being instructed. Ultimately this positioning of the other informed the orientation of the other in how safety should be oriented to. In other words, it is not only in the interest of the instructor that the student should orient to safety in specific ways, but also from a certain position. In this regard the use of a question which can only be answered from a position of knowledge and which is then also answered by the instructor, is an example of how students were oriented to their not-knowing position within the training setting. Safety seems to be somehow linked to hierarchical structures, with the student being dependent on these structures for his/her safety.

As already stated, the importance of considering the rhetorical function of the instructor's talk was highlighted by the lack of supportive (or non-supportive) orientation from listeners. It seemed, though, that the instructor employed rhetoric in managing quite a few aspects of the conversation. It seemed that accounts were constructed rhetorically in order to make accounts more acceptable or at least more difficult to challenge. Once again, the maintenance of a superior footing was important in strengthening this action and vice versa. Furthermore, some strategies were also employed in the *construction of* rhetorical accounts. So for example, the instructor would align himself differently with different accounts, and allow himself manoeuvrability throughout the conversation so as to counter for possibilities of being questioned or bringing his accounts or his position into disrepute. In extract 2 the researcher showed how, for example, responsibility (and thus blaming) seemed to be at stake for the instructor when accounting for activities gone wrong. Note how the disclaimer was used as a device in the negotiation of responsibility.

The researcher will now attempt to conclude on the devices, resources and strategies that this particular instructor seemed to draw on in his construction of activities that fall within the realm of safe diving.

First of all and throughout all activities, there was the use of conditions and following consequences in the event of non-compliance. There then was the

use of an "if-then" structure in accounting for error. It was also notable how such conditions with mostly negative consequences (accounts of bad experiences) preceded accounts of correct or standard procedures. From this followed another strategy used by the instructor, namely the contrasting of accounts, in other words contrasting ways in which the activity could be done, particularly right and wrong. It was also notable how the instructor made use of categorization of people (e.g., everyone vs. Joburg people) in constructing contrasting accounts. Safety was accounted for as something which held consequences for the wrong doer, and such a wrong doer was delicately yet clearly constructed.

This in turn led the researcher to an illustration of the institutional situatedness of talk. It was noted in chapter 2 that talk was oriented to and made relevant within the context in which it was delivered, in this instance the training setting. More importantly however, was pointing to the notion of non-determinism, i.e. the institutional setting is oriented to but does not determine talk. It was clearly shown in this analysis how mostly talk was made relevant to diving, yet aspects of residence were used in the construction of diving related activities. Diving safety is then not just a theoretical concept as it would seem from the literature, but is negotiated and gets accounted for within the sphere of personal particulars.

Also, in conjunction with the normalizing of accounts discussed earlier (especially regarding correct performances), was the use of vivid description in accounting for activities. Apart from making such activities standard, it might also act in providing clarity of the account. The instructor used many descriptive resources, including metaphor, sound effects as well as specific ways of delivering his speech (speech rate, emphasis, animated tone, etc.) in enhancing the descriptiveness of his accounts. Once again, this alludes to the serious nature of safety, or at least then the seriousness of getting it across to students very clearly.

This seems to be linked to the use of the words "ok" and "alright". These words were said to possibly contain various functions. In their repetitive form

they seemed to fix the information and make the information "ok" and "alright". It then seemed that the instructor was oriented to making sure of the information, not only in terms of its clarity, but also its acceptability and being understood by the receiver. Furthermore, "ok" and "alright" could be seen as a continuer both in indicating the end of one account, and in keeping the floor to continue with a next.

Repetition then also seemed to be employed, not only in the case of "ok" and "alright" when ensuring understanding of information, but also in repeating other utterances. It seemed to function in giving more exposure to certain accounts, magnifying their importance.   Repetition was then seen as displaying the instructor's concern with certain accounts, making them important and aiding in the making serious of certain actions.   Safety is seemingly an activity that gets enhanced through repetition, and possesses an "over and over" nature.

In addition to "ok" and "alright" seemingly wrapping up accounts, as well as providing the opportunity for responding to them, the word "so" was often used throughout talk. "So" tended to appear near the end of accounts, demarcating a formulation of a conclusion and wrapping up of the account. Important to note was that the "so" utterance was not simply a conclusion, but also usually a repetition of some previous utterance, also then aiding in the functions of repetition, such as importance making.

The factual making of accounts was probably one of the most important features of the instructor's talk. Many devices were employed in the name of convincing and making accounts believable. Some of these were drawing upon previous experience, narrating activities, using scientific knowledge, delivering accounts in the form of instructions (again bringing the instructor's institutional power into play, displaying him as the one with knowledge about proper deportment vs. the one who may gain validation through obedience), justifying such instructions, and using numbers and statistics (whether it be in making an account more serious or less serious as in activity free-flowing regulator). It has become increasingly clear that doing safety is of great

importance to the instructor, and making safety a fact is perhaps of greater importance than negotiating its qualities.

In conjunction with the idea of proper deportment with inherent validation through obedience, is the idea of membership. It would seem that solving problems were related to other stakeholders and that endorsement by such others was necessary for solving problems. It would seem that without such membership the person in trouble would not necessarily be doomed, but that it would certainly leave the person with less possible solutions. Ultimately, as with compliance with instructions, it would mean that membership could ensure not being left out. Regarding other stakeholders, the data that was analyzed indicated a medicalization of problem solving. Diving safety then seems unanimous with belonging to, and especially this "belonging to" providing access to medical help.

An interesting device employed by the instructor was joking. The joke can be interpreted in so many ways, yet the institutional specifics, which place the instructor in a superior position, strongly alluded to (in agreement with Perinbanayagam, 1991) the idea of the joke as an instrument of authority for domination. It was also shown how the joke could play a part in the negotiation of the instructor-student relationship in the training setting, allowing the relationship to be expanded by introducing familiarity to the interaction. As a response to the joke, laughter was observed as an orientation to the joke and an acceptance thereof (and possibly the relationship negotiated by its use). The conversationalist though also used laughter to delicately manage the insulting attribute that the joke could possibly display, and thus managed some rhetorical business.

A final and more comprehensive remark concerning the construction of safety lies within the orientation to problem solving. It seems that managing problems, and therefore safety, is oriented to as something which can be dealt with from either a preventative or reactive vantage point. The diver was informed to manage his/her safety in terms of preventing problems and, if not, reacting to it in a specified manner.

The researcher felt that an important characteristic of the data gathered through this research project, was the lack of orientation from participants. This was characteristic not only of the transcribed data used in the research, but all the recorded data in general. It has been made clear in chapter 2 how important it is to consider the sequential nature and organization of talk, especially in formulating ideas regarding what such talk is doing.   The recorded interaction was then surprising to the researcher, and amounted to questions into the reason for this silence from the students, as well as how it was achieved and what it allowed. It also complicated the researcher's task as interpreter in reading well supported actions and orientations from the data. In this regard the researcher strongly considered and relied upon the other characteristics of the talk, namely its rhetorical value, the institutionality of the interactional environment, and what seemed to be constructed even in the absence of response.

Following from this is the important role that silence played in the construction of safety.   Perinbanayagam (1991) reports on the relation between the instructor's superior position and how the sheer length of utterances the superordinate produces carries discursive weight, which constraints the recipient to short, and at times, disyllabic answers.   The phenomenon of limited orientation from the students might then be seen in the light of the instructor's extended accounts, yet the researcher feels that this topic calls for more research and more examples of this occurrence.

The study therefore did not elaborate extensively on the role of silence (from the students) in the training context, but the researcher felt that it lent formality to this specific setting. Drew et al. (1992) note that informal settings have room within them for considerable negotiation as to how they will become managed. For the researcher, the most important consequence of silence for safety then, was the little room it left students for negotiating safety. There is no display of stake and interest from the students, and even though it does not confirm a lack of stake or interest, it does raise concern for the possibility (or no possibility!) for investment made by students in their own safety.

5.2   Limitations

As was set out in the methodology of this research, it was the researcher's aim to conduct data collection throughout three phases of training, namely classroom, pool, and open water (beach). The motivation for this method was an attempt to collect raw data that would represent the whole of the training process. Due to logistical difficulties on the researcher's side, it was not possible to attend the briefings conducted on the beach, and the researcher failed to collect data on the third phase of the training process. This would be considered as one of the main limitations of this study, and it would be recommended that future studies include all three phases of data collection to improve the degree of representativeness of the data, and a possible comparison of the three phases.

A further goal which the researcher had set for herself, yet had not managed to achieve, was member checking. In the light of limited orientation from other participants to assist in the checking of interpretations, it would have been valuable to check these interpretations with the participants. Thus, to enhance the validity of the research, the researcher would have liked to have conversations with the participants about their judgement of the quality of the analysis.

5.3   Suggestions for Future Directions

Suggestions for diving training:

- Following the discrepancy between safe diving being a serious issue, and an interest in displaying diving as fun, it could be recommended to the instructor to talk about fun diving and safe diving at different times. In this manner, the effect achieved by accounts of the different perspectives on diving could be enhanced, as the instructor would not have to manage a tension between the two, and a confusion between serious and fun (affecting a clear understanding of safety) could be avoided.

- It is recommended to focus on talk which allow or invite students to respond and formulate understandings. In allowing students to partake in the negotiation of safety, it might aid the instructor in his displayed concern about students understanding or not. In being part of the construction of safety, students can make safety their own construction. This could perhaps prove to be more effective, as it is speculated to enhance their stake and interest in diving safety.

- Consider the negotiation of footing during the training process and how this situates the student in relation to safety. In other words, is a positioning of the student as "dependent" conducive to that student taking responsibility for his/her safety?

- Consider the notions of "joking with" and "ridiculing" as tools of social control. How functional are these devices in motivating a diver to admit to having a problem when diving?

- Discuss the results with the instructor. In doing so, the instructor may gain a reflexive perspective on his training, and new options may become available to him in challenging the "truths" that he experiences as specifying of himself and his training. This instructor, and the diving community in general, could benefit from discovering interactional structures and the organization thereof in training and gain awareness of how their use of various discursive devices shape diving safety. By explicating the organization of training, e.g. instructor talks – student listens, the business that gets done by that organization can be illuminated. Understanding this should make a positive contribution to training.

Suggestions for future research:

Taking into account that data was not gathered during the open water phase of training, it is suggested that future research attempts to gather such data

and conduct a comparative study to investigate differences in classroom and open water talk.

Considering that results have been obtained from one diving course, it is kept in mind that other instructors will train differently. In this regard it might be valuable to launch studies in various other diving training institutions. Such research may be able to find which characteristics of talk are related to the specifics of person and place and which are related to the diving industry in general. This then also implies the investigation of more and different diving activities in order to find patterns and correlations, which have implications for diving safety.

A further suggestion would include a study looking specifically at students' silence. Noble as cited in Parker (1999:192) made the following comment: "Talk in the context of silence can become little more than a smokescreen for that silence". Through a concern with what was said in this research, little time was devoted to what was not said or allowed to be said in the meanwhile. It could be valuable to consider different training situations where a comparison between silent and non-silent responses from students can be observed, and how this has consequences for action.

It is the researcher's opinion that it would enhance the quality and fruitfulness of this study to do a follow-up study where the results could be implemented and observations made about its effect on the lived experience of divers. This research was not only committed to providing fresh and alternative solutions to an existing problem, but would like to carry them through to the participants from whom they originated, and check their applicability where they really matter.

This research has attempted to provide a concise example of discursive work, and in doing so has hopefully shown other mental health professionals how important aspects, such as a person's safety, are constructed without our presence. People manage this aspect, and all others, by themselves in their everyday lives. This has much to say about our way of intervening. Perhaps

we need not do things for people. They don't necessarily need to be in our consultation rooms to be helped or for psychology to take place. It is not for us to decide what things are about, but it would serve us well to stay with what our clients give us and listen closely to just that. Hopefully, from here options and solutions can arise that will be closer to the client's needs, and will speak of a psychologist who acts from within the client's world and not his/her own. Perhaps this research will not only lead to new avenues for future research, but also an opportunity for negotiating our role in the community, especially in the world of sport psychology. Aspects that are considered psychological phenomena by professionals such as sport psychologists have been shown to be outside the therapeutic context and negotiated by participants themselves. This study might then be considered for its value in illustrating alternative means and methods when intervening in this field.

5.4   Validity

Generalizability

The detailed focus on data in this study was consequential for the sample size, in that it limited the researcher to focus on small sections of transcribed talk. Quality was preferred above quantity, and to obtain a sufficiently thorough consideration of the detail of talk meant a focus on smaller quantities of data. In application of discursive psychology, a thorough analysis of one extract is more valid than under-analysis of many, and in this way less is more. Generalizability does not pertain to deductions made for a represented population, but depends on the reader, and how the reader can make this research relevant in his/her own life. However, the researcher feels that further studies could be conducted by using the same or similar data, in order to obtain a comparative point of view as well as a more representative set of results.

It is likely that as analyses on this topic accumulate, a comparative approach could tackle the question of generalizability by demonstrating the similarities

and differences across a number of settings. For the time being, however, most of the studies on institutional settings in general are more like case studies.   In terms of traditional "distributional" understandings of generalizability, case studies on institutional interaction cannot offer much. However, the question of generalizability can also be approached from a different direction.   The concept of possibility is a key to this, i.e. social practices that are possible and specifically the possibilities of language use. Therefore, although what is reported on will not occur exactly this way in other settings and cannot be directly generalized as possibilities, the practices that were analyzed are very likely to be generalizable.   The results are thus not generalizable as descriptions of what other instructors do with their students, but they are generalizable as descriptions of what any instructor, with his/her students, *can* do.

Quality

From a post-modern perspective, this research's validity and quality will ultimately be a negotiation within the conversational context and is therefore validated when the discourse thereof is persuasive to the community of researchers.

From the same perspective, justification of knowledge is replaced by application.   Knowledge becomes the ability to perform effective actions. Thus, in addition to modern concepts of validity, the suggested feedback to participants and a follow-up study to observe the effects, are valuable for determining the validity of this research.   This, together with the reader's evaluation that he/she can make in being presented with the transcript alongside of its analytic interpretations, are important evaluative criterion.

In accordance with the above focus on pragmatic use of the research, the fruitfulness thereof should be considered in terms of fresh solutions that it generates to the problem, and the extent to which the study provides a basis for further work by other researchers. The researcher attempted to show this in the "future directions" subsection.

Finally, as stated previously, the researcher collaborated with other accomplished discursive researchers in the field, and took part in discussion groups with peers in an attempt to obtain different perspectives on the data, and most importantly to corroborate the validity and quality of the researcher's own interpretations of the data.

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APPENDIX A

Letter of Consent

I, _____, hereby agree that the research project, as it was discussed with me, may be conducted within Reef Divers diving school using the school's premises and equipment. I am aware of the purpose and planned program of the research and I am willing to be the participating organization during these events. I give my permission that all information gathered by the researcher during her research project may be used for the purpose of a research report, which will be presented to a supervising psychologist as well as an external evaluator, and may be published for academic purposes. I am aware that information will be gathered via **tape/digital recordings**, and volunteer to take part in this activity.

I also indemnify the University of Pretoria and the researcher of all claims and injuries, which may occur during the course of the research, relevant to my organization or myself. Reef Divers are liable for injuries and claims during the course of scuba diving training, and does not hold the researcher or the University of Pretoria liable for such claims.

This document was signed on this _____ day of _____ at

_____.

_____   _____

                                                    Mirike du Preez

Owner: Reef Divers   Intern Psychologist

_____

Lourens H. Human

Supervisor: Counselling Psychology

Letter of Consent

I, _____, hereby agree to be a participant in the research project as was discussed with me. I am aware of the purpose and planned program of the research and I am willing to participate in these events as the Instructor during the diving course. I give my permission that all information gathered by the researcher during her research project may be used for the purpose of a research report, which will be presented to a supervising psychologist as well as an external evaluator, and may be published for academic purposes. I am aware that information will be gathered via **tape/digital recordings**, and volunteer to take part in this activity.

I also indemnify the University of Pretoria and the researcher of all claims and injuries that may occur during the course of the research. The researcher and her affiliates are also indemnified from any claims that may result from the Instructor's affiliation to diving organizations such as PADI.

This document was signed on this _____ day of _____ at _____.

_____   _____
                                                          Mirike du Preez
PADI Instructor #   Intern Psychologist

_____
Lourens H. Human
Supervisor: Counselling Psychology

Letter of Consent

I, _____, hereby agree to be a participant in the research project as was discussed with me. I am aware of the purpose and planned program of the research and I am willing to participate in these events. I give my permission that all information gathered by the researcher during her research project may be used for the purpose of a research report, which will be presented to a supervising psychologist as well as an external evaluator, and may be published for academic purposes. I am aware that information will be gathered via **tape/digital recordings**, and volunteer to take part in this activity.

I also indemnify the University of Pretoria and the researcher of all claims and injuries that may occur during the course of the research and scuba diving training.

This document was signed on this _____ day of _____ at _____.

_____   _____

………………………………   Mirike du Preez

                                         Intern Psychologist

_____

Lourens H. Human
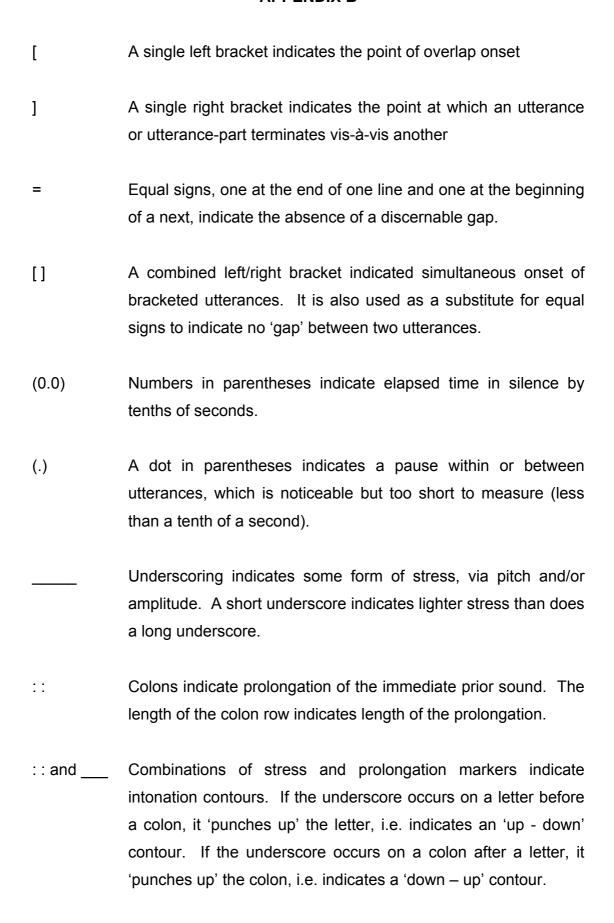
Supervisor: Counselling Psychology

Agreement of Confidentiality

I, _____, hereby agree to be a participant in the research project as was discussed with me. I am aware of the purpose and planned program of the research and I am willing to participate in these events. I am aware that my role will be limited to that of sound engineer, working with audio material gathered in this research project. I am also aware of the sensitivity of this material and therefore commit myself to an agreement of confidentiality, ensuring anonymity to the participants of this research project.

I also indemnify the University of Pretoria and the researcher of all claims and injuries that may occur during the course of the research.

This document was signed on this _____ day of _____ at _____.

_____   _____

                                                      Mirike du Preez

Participating Sound Engineer   Intern Psychologist

_____

Lourens H. Human

Supervisor: Counselling Psychology

APPENDIX B

[A single left bracket indicates the point of overlap onset

]   A single right bracket indicates the point at which an utterance or utterance-part terminates vis-à-vis another

=   Equal signs, one at the end of one line and one at the beginning of a next, indicate the absence of a discernable gap.

[ ]   A combined left/right bracket indicated simultaneous onset of bracketed utterances. It is also used as a substitute for equal signs to indicate no 'gap' between two utterances.

(0.0)   Numbers in parentheses indicate elapsed time in silence by tenths of seconds.

(.)   A dot in parentheses indicates a pause within or between utterances, which is noticeable but too short to measure (less than a tenth of a second).

_____   Underscoring indicates some form of stress, via pitch and/or amplitude. A short underscore indicates lighter stress than does a long underscore.

: :   Colons indicate prolongation of the immediate prior sound. The length of the colon row indicates length of the prolongation.

: : and ___   Combinations of stress and prolongation markers indicate intonation contours. If the underscore occurs on a letter before a colon, it 'punches up' the letter, i.e. indicates an 'up - down' contour. If the underscore occurs on a colon after a letter, it 'punches up' the colon, i.e. indicates a 'down – up' contour.

↑↓   Arrows indicate shifts into higher or lower pitch than would be indicated by just the combined stress/prolongation markers.

. , ?   Punctuation marks signify normal intonation, not grammar.

.   For downward, ending intonation

,   For continuative intonation

?   For rising, questioning intonation

!   Exclamation marks are used to indicate an animated or emphatic tone.

WORD   Upper case indicates especially loud sounds relative to the surrounding talk.

°   The degree sign is used as a 'softener'. Utterances or utterance parts bracketed by degree signs are relatively quieter than the surrounding talk.

.hhh   A dot-prefixed row of h's indicates an inbreath. Without the dot the h's indicate an outbreath.

wohhrd A row of h's within a word indicates breathiness.

(h)   A parenthesized h indicates plosiveness. This can be associated with laughter, crying, breathlessness, etc.

( )   Empty parentheses indicate the transcriber's inability to hear what was said. The length of the parenthesised space indicates the length of the untranscribed talk.

(word)   Parenthesised words are especially dubious hearings or speaker-identifications.

(( ))	Double parentheses contain transcribers' descriptions rather than, or in addition to, transcriptions.
r*ight	An asterisk following a consonant indicates a 'squeaky', crisp, hard, or dentalized vocal delivery.
ä,ë,ï	Two dots (umlaut, diaeresis) serves as a hardener, as well as a shortener.
(*b*)	A parenthesized italicized letter indicates an incipient sound.
-	A dash indicates a cut-off
> <	Right/left carets bracketing an utterance or utterance-part indicate speeding up.
< >	Left/right carets bracketing an utterance or utterance-part indicate slowing down.
£	The pound-sterling sign indicates a certain quality of voice, which conveys suppressed laughter.
(φ)	A nul sign indicates that there may or may not be talk occurring in the designated space. What is being heard as possibly talk might also be ambient noise.
heh heh	Voiced laughter. Can have other symbols added, such as underlinings, pitch movement, etc.
sto(h)p i(h)t	Laughter within speech is signalled by h's in brackets.