

2005

Exploring the use of guided interviews as a research tool in a doctoral study of safe work practices of young construction workers

Susanne Bahn
Edith Cowan University

Follow this and additional works at: <https://ro.ecu.edu.au/ecuworks>



Part of the [Business Administration, Management, and Operations Commons](#), and the [Occupational Health and Industrial Hygiene Commons](#)

This is an Author's Accepted Manuscript of: Bahn, S. T. (2005). Exploring the use of guided interviews as a research tool in a doctoral study of safe work practices of young construction workers. Proceedings of Australian and New Zealand Academy of Management Conference. (pp. 1-21). Canberra. ANZAM.

This Conference Proceeding is posted at Research Online.

<https://ro.ecu.edu.au/ecuworks/2411>

**Exploring the Use of Guided Interviews as a Research Tool in a Doctoral
Study of Safe Work Practices of Young Construction Workers**

Susanne Bahn

**Edith Cowan University
School of Management
Churchlands Western Australia**

**Ph +61 8 9448 9512
Mob +61 0 408 882 353
Fax +61 8 9203 7379**

Email: sbahn@kissafety.com.au

Exploring the Use of Guided Interviews: as a Research Tool in a Doctoral Study of Safe Work Practices of Young Construction Workers

Abstract

This paper uses the research processes of a doctoral study that investigates young workers learning safe practices within the housing construction industry to explore the use of guided interviews with artefacts as an ethnographic technique to gather qualitative data. The paper identifies how this specifically vulnerable group are subject to the 'Cycle of Abuse'. The complications of gathering accurate data from the 15-19 age group in this industry are discussed, including dealing with low literacy levels, defensive trainers, power of access and high emotions. The paper reviews the use of images within guided interviews and provides a conceptual model. The paper concludes by proposing that using images, both abstract and concrete within a guided interview can produce data that encapsulates both conceptual and concrete responses leading to a more informative and complete research method that both mediates the issues of participant engagement and elicits more holistic data.

Keywords: *Guided Interviews, Images, Research Method, Ethnographic, Housing Construction Industry, Safe Work Practices.*

Introduction

This paper is grounded in an emerging doctoral study focusing upon young employee safety and methodological issues concerned with operational constraints in the project. From a work place point of view the cycle of abuse for young workers in the housing construction industry appears to be a never ending one. The skills shortage and continuing housing boom in Western Australia has placed increased pressure on the safety culture in these workplaces. Tradespeople are under pressure to perform at an accelerated rate. Young workers in the industry are also encouraged to work faster, leading to work practice shortcuts, including those that put their personal safety at risk to 'get the job done' (WorkSafe WA, 2005). The training workplace culture is at odds with the 'real' workplace culture in that although Occupational Health & Safety (OH&S or OS&H) principles are embedded in Vocational Education and Training (VET) initiatives their application in the workplace may be limited (OS&H Act 1984, OS&H Regs 1996, National Standard for Construction Work NOHSC: 1016, 2005). The problems and manifestation of the duality of social cultures, as modelled by Giddens (1984), where social practices are continuously replicated unless local agencies or specific initiatives challenge existing social values, institutions and behaviours is occurring in this industry.

The objectives of the research study are to provide evidence in order for VET programmes to introduce applicable interventions within the safety training that 15-19 year olds undertake while gaining their trade certificates and on the job work skills (Schultz et al 2005). The purpose of such interventions is to encourage adequate supervision and observations while young people are performing their daily work tasks and to have those businesses displaying low injury/disease rates become 'best practice' examples and act as benchmarks for those employed in the construction industry.

Pilot research indicates that there is a lack of formal, independent OH&S education in 15-19 year olds attaining their trade certificates and that this is substantiated by the high incidence rate of workplace injuries/diseases in this age group, therefore necessitating such education. The study will investigate several phenomena including the need for observation and competency assessments of 15-24 year olds on a regular basis and the need for formal documentation of hazards and controls to eliminate or reduce these hazards to an acceptable level. The study aims to produce grounded guidelines to inform safe practice and education needs for the 15-24 year olds. This may include exploring the use of more visual OH&S training in VET programmes in such a way that is appropriate for 15-19 year olds in the use of pictures, movies and activities as Smith (1997) notes 'Competency Based Training has been shown not to suit many young people, being more appropriate for mature trainees and workers.' The study is hoping to develop relationships with several contract builders where best practice initiatives provide the opportunities to explore benchmark practices and their contextual relations.

However, even at the initial stages, this study possesses some unique challenges. The gathering of quantitative and qualitative data poses a problem in the 15-19 age group working within the construction industry as it is a highly emotive area. Literacy levels are often at a low level with many 15 year olds attaining only their Year 10 school certificate. While most students have left the school environment and have moved straight into VET training facilities such as TAFE, others have left school some year's earlier and received traineeships in order to provide valuable skills training. Students usually move into trades as they do not achieve the grades required to go onto a University

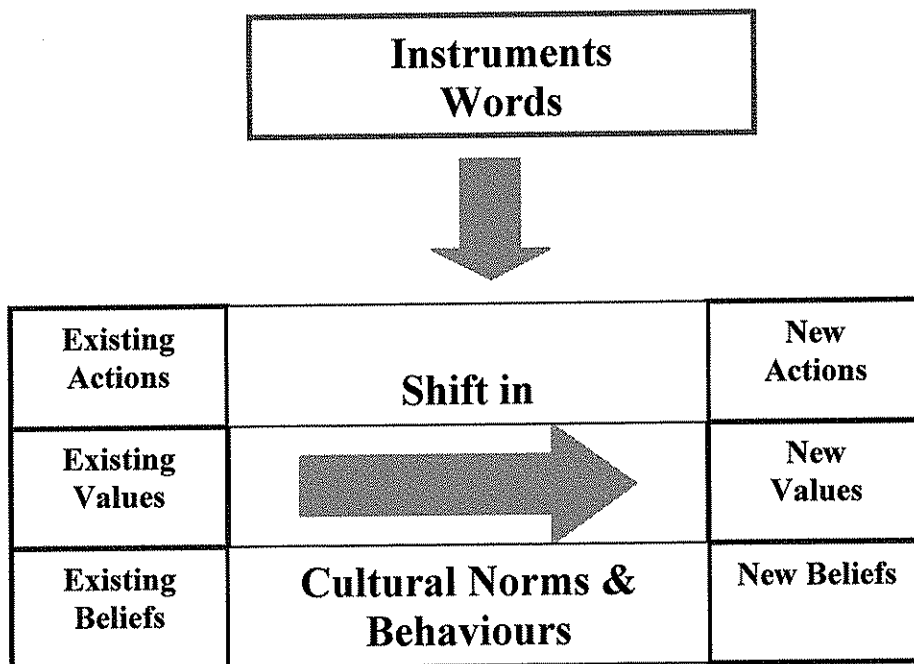
education and many 'hate' school. Therefore how do we fully engage this age group in order to gather data that is accurate? In addition commercial competition makes forming relationships with businesses about such an emotive issue complex and challenging because both positive and negative aspects of work practices could be exposed. This paper will explore the use of guided interviews using pictures as an ethnographic technique to gather the data and will put forward the argument that this will produce a greater insight into the value of safe working practices in young people by engaging them in a more appropriate data collection method.

Further problems of gathering data for the doctoral study include the gaining of access. This requires the borrowing of people's time while attending their training classes. This could be further exacerbated in that the VET training providers and deliverers could become defensive of their training techniques and offended by any outside interference due to the findings of the research.

In academic terms the paper looks at an organisational culture with continuing poor safe work practices that require change mechanisms to be introduced in order to initiate a change to these practices. This may be achieved by an injection of discursive instruments, i.e. guidelines for best practice, case studies and staged processes. The current culture has elements of reinforcing patterns and is therefore self perpetuating (Giddens 1984, Hassard 1993, Morley 1991). Barratt-Pugh (2004) states that: 'Giddens asserts that a *dualism* exists where continual social interaction both constitutes and is constituted by social structure. Structure and social action mutually mediate and constitute each other. As structure acts to shape action and practice re-shapes patterns of structure.' Everything we 'do' is affected by the culture and in turn influences the culture within an organization.

Gee (1996) and Schein (1965) argue that it is discourse and words that are instrumental in changing actions, beliefs and behaviours; that society patterns are formed and replicated by language. Language, whether delivered verbally or in print form, or together with actions and pictures reshapes social pattern. The model following illustrates this concept.

Figure 1: Words Change Behaviours (based on Schein 1965)



In order to make these behavioural changes in the housing industry a variety of discursive instruments are used. Words appear in legislation, workers compensation guidelines and in training and coaching interactions. This study will explore the effects of such interventions.

Justification of the Doctoral Study Focus

We increasingly live within an organizational society (Giddens 1984, Clegg et al 1996). Organisations generate local cultures through continual interaction and action of their employees (Morley 1991). In order to introduce a safety culture within organisations we need to introduce organisational behaviour change models and initiatives (Martin 1992). These initiatives are generally supported by training, both of a formal and informal nature within the workplace. VET offers formal training and certificates; Observations & Competency Assessments represent the informal training that occurs within the workplace. There is considerable weight of existing data to support these initiatives.

WorkSafe WA has identified that lost time injuries and diseases involving young workers (15-19 age group) represent 8% of all Lost Time Injuries/Diseases (LTI/D) claims overall (an average of 1670

claims per year) and that this age group shows the highest frequency of any age group (Baker 2004, Smith 2004, Beharie 2003, Brown 2003, Frone 1998). This identifies them as a group that is particularly vulnerable and in continual need of training and observation (Freiman 2003, Young 1998). Construction and trade services, supermarket and grocery stores and metal product manufacturing have the highest percentages of injuries in the 15-19 age group with the 20-24 age group coming a close second (WorkSafe WA 2004). The table following shows the overall Work Related Injuries and Diseases in WA in the Construction Industry over a period of five years, 1998 – 2003. Statistics for 2004 are not yet available; but it could be assumed that the trend will remain the same. They present a continuing and increasing trend of injury to new employees within the industry. It can be seen from the table following that although the overall frequency of injuries and diseases that occur in the construction industry each year have decreased since 1998, injuries that require more than sixty days off work for recovery have not significantly decreased. The average duration time to recover from an injury or disease occurring in the workplace in the construction industry has risen considerably in recent years. This indicates that the current OH&S practices are not making a significant impact on the frequency of injury and disease occurrences in the construction industry.

Table 1: Work Related Injuries & Disease in the Construction Industry in WA, 1998-2003.

Work Related Injuries & Diseases in WA – 1998-1999 to 2002-2003 Construction						
Year	LTIDs	Frequency 1+ days	Frequency 60+ days	Incidence 1+ days	Incidence 60+ days	Average Duration
2002-03	1868	18.9	4.8	4.0	1.0	-
2001-02	1906	19.3	4.3	3.9	0.9	83.6
2000-01	2203	21.8	4.0	4.4	0.8	76.2
1999-00	2738	26.1	4.4	5.4	0.9	69.9
1998-99	2943	35.5	5.5	6.9	1.1	62.7

(WorkSafe WA 2005)

The table following breaks up the above injury/disease statistics into specific construction areas of general and construction trades (housing construction). It can be seen from the table following that housing construction trades have a higher frequency of injuries and diseases than that of general construction. It is important to note that 8% (WorkSafe WA) of these injury/disease incidences occur with young people. Therefore OH&S practices of young people within the housing construction industry need further examination to determine what other strategies can be put into place to reduce the number of injury/disease incidences that occur in this age group.

The CFMEU, the Union representing the Construction Industry, does not keep any statistics of the occurrence of workplace injuries/diseases. Their role is to sit in on State Committees investigating trainees and injury rates and relies heavily on the workers compensation statistics collated by WorkSafe WA on reported incidents. It would be fair to surmise that there are accidents and incidents that occur in the workplace that go unreported and therefore the true figures could indeed be much higher.

Table 2: Work Related Injuries & Diseases by Sub-Industry in the Construction Industry in WA, 1998-2003

Sub-Industry within Industry

Sub-Industry	Year	LTIDs	Incidence 1+ days	Incidence 60+ days	Average Duration
General Construction	2002-03	592	3.2	0.8	-
General Construction	2001-02	668	3.4	0.9	104.4
General Construction	2000-01	745	3.8	0.7	81.8
General Construction	1999-00	894	4.8	0.8	75.1
General Construction	1998-99	970	5.5	1.0	76.7
Construction Trades	2002-03	1276	4.5	1.1	-
Construction Trades	2001-02	1238	4.2	0.9	72.5
Construction Trades	2000-01	1458	4.9	0.9	73.4
Construction Trades	1999-00	1844	5.9	1.0	67.3
Construction Trades	1998-99	1973	7.9	1.1	55.8

Note: Average days duration is not provided for the most recent year due to the high proportion of unfinalised claims in that year.

(WorkSafe WA 2005)

The considerable safety risks that are present when working in the construction industry were a focus for a federally funded royal commission, the Cole Royal Commission. The Cole Report that was published from the Cole Royal Commission (Cole 2003) that was established to report on safety and the construction industry stated that:

‘It is universally accepted by governments, by employers, and by unions that workplace health and safety is an issue of fundamental importance to the industry. It is at the very heart of successful workplace relations. The likelihood of suffering a workplace-related injury or fatality is greater for workers in the building and construction industry than for workers generally.’

The Issue that was identified was that:

The occupational health and safety performance of the building and construction industry is unacceptable. The powerful competitive forces in the industry too often work against occupational health and safety. The industry strives to complete projects on budget and on time. Too often safety is neglected. There must be cultural and behavioural change. That can come about by harnessing the competitive forces in the industry to work for occupational health and safety.

The recommendation was for:

The Commonwealth, to foster a new paradigm in the building and construction industry.

Work must be performed safely, as well as on budget and on time.

Pressure for production within the industry has not abated; currently construction orders for home building are at capacity with up to a two year wait for completion of the average home. The lack of skilled trades people has those working in the housing construction industry performing a seven day working week and/or extended working hours. In the past trades people were struggling for contracts due to a slowing of construction demands and this lack of funds was one of the reasons for a lesser focus on training. It could be argued that presently there is enough wealth in the industry to put money back into sufficient safety training for the young worker but time is now the main constraint.

Current research indicates that the 15-24 age group in the housing construction industry have insufficient safety training and 'street smarts' to adequately protect themselves from the hazards they face in the workplace (Baker 2004, Smith 2004, Beharie 2003, Brown 2003, Frone 1998, Frieman 2003, Young, 1998). Add to this is the belief they hold that they are 'invincible' and therefore nothing can hurt them. Youthful exuberance and naivety combines with a desire to impress and a fear of questioning authority, often with tragic consequences (Beharie 2003). Young people simply haven't developed enough to appreciate all of the dangers that exist in the workplace. Young people may appear mature and ready to do any job, but research has shown that a person's cognitive development typically isn't complete until well into the 20s (Schultz et al 2005). There is no specific OH&S training available in apprenticeship training courses (NOHSC: 1016, 2005), rather it is imbedded within all VET training programmes. Young people move from the 'safe' learning environment of schools into the VET facilities such as TAFES. The learning culture is one that encompasses both classroom training and workplace training components. The 'cycle of abuse' begins here. The safety culture that is taught in the classroom is not the 'real' culture of the workplace (Garrrick 1998). The current workplace environment encourages shortcuts to be taken to complete the job in the shortest time. As young people are often reluctant to speak up if they see a hazardous situation, fearing reprisal from their employer, they place their personal safety at risk. Clegg (1975) compares this 'power' within organisations to that of an 'ongoing game of chess' where the young and inexperienced players in the game or in the workplace are simply pawns to those who have the power or are in authority. The model following illustrates the 'Cycle of Abuse'. The housing industry building boom and skills shortage in WA has led to trades people under pressure to perform at an accelerated rate. Young workers in the industry are also encouraged to work faster, leading to work practice shortcuts, including those that put their personal safety at risk to 'get the job done'. This leads to a greater occurrence of injury of young people in the workplace, which in turn leads to higher Workers Compensation Insurance premiums. Legislation and VET are trying to cope with these pressures to introduce more safety legislation and insist on compliance to tougher OH&S laws (OS&H Regs 1996) as well as more comprehensive training with a focus on safety. The Cycle of Abuse can be modeled as follows:

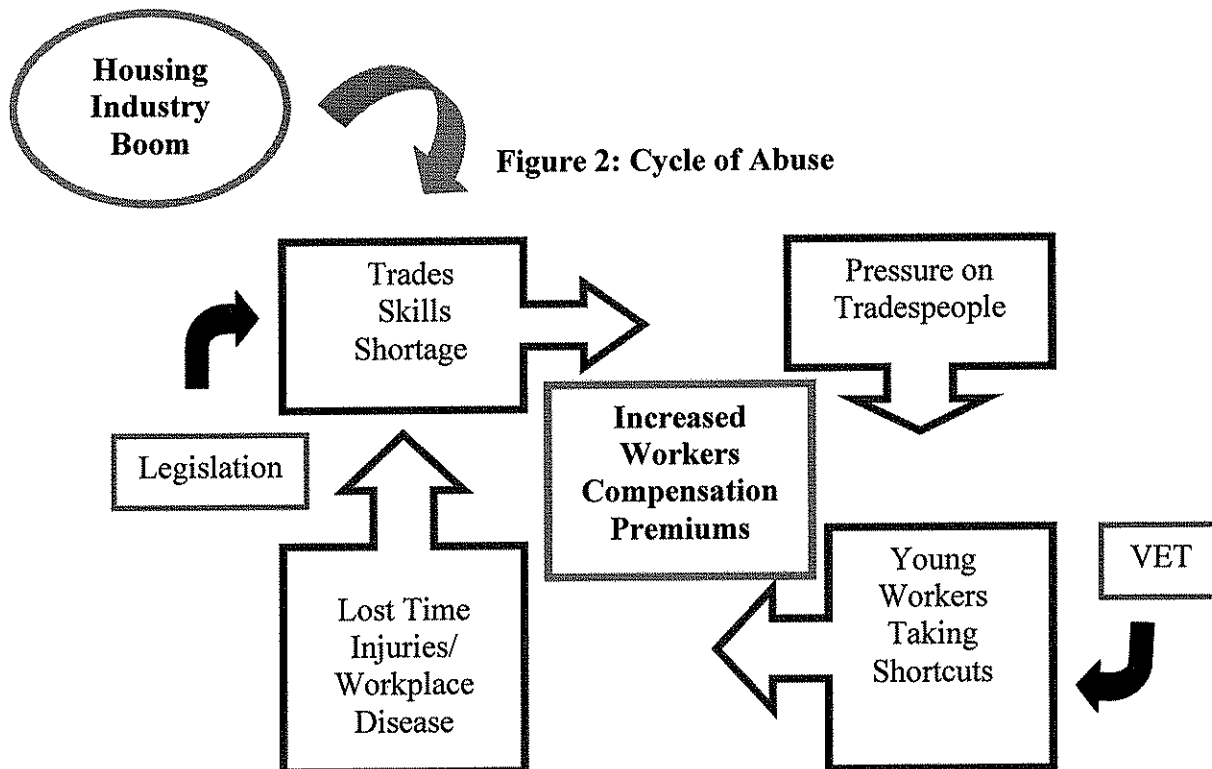
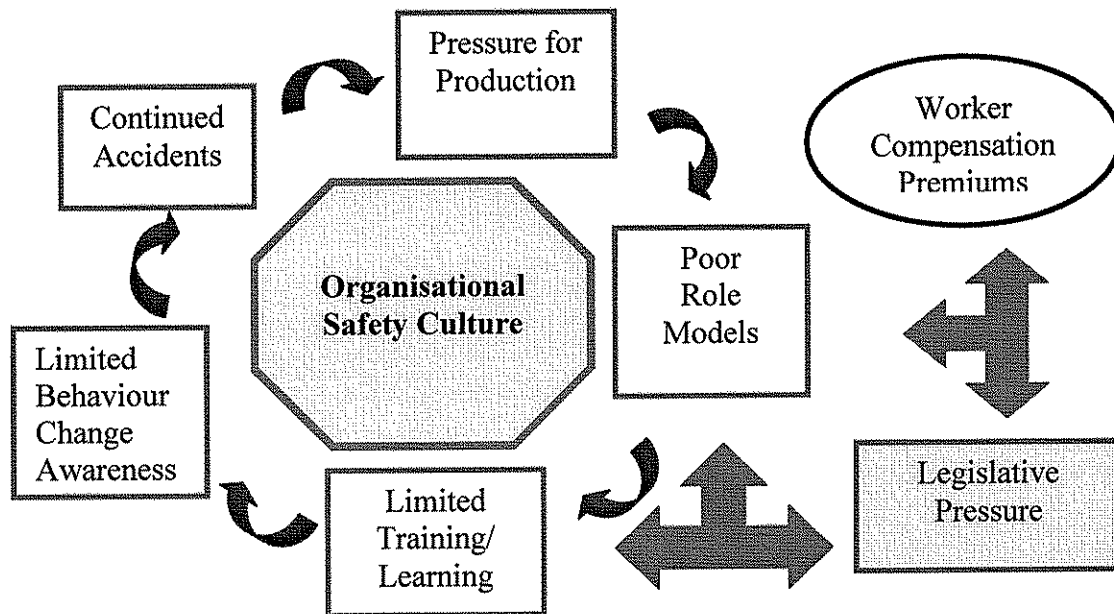


Figure 2: Cycle of Abuse

A further extension of the Cycle of Abuse appears in the model below. The Culture within the housing industry is one under pressure for increased production. Trades people under this exerted pressure often become poor role models for their apprentices. The pressure on trades people is increased by legislation requirements (OS&H Act 1984, OS&H Regs 1996), and increased Workers Compensation Premiums. OSH Training, although encompassed in all VET training does not have a separate focus in apprenticeship courses (NOHSC, 2005). Therefore specific OSH training and learning is currently limited. Without specific OSH training the organisational behaviour ceases to change and in effect perpetuates a 'non safety culture' in the workplace. This leads to continued accidents of young people in the housing construction industry which in turn leads to increased pressure on production and the cycle continues.

Figure 3: Organizational Safety Climate and the Cycle of Abuse



An Ipsos-Reid national survey conducted in 2003 on behalf of the Association of Workers' Compensation Boards of Canada (cited in Freiman 2003) found that less than half of the polled young workers reported having received occupational health and safety training before or within the first week of starting their jobs. Of the 40% of youths so trained, only half said that training was comprehensive. 60% of young workers taking part in the national survey did not recall seeing, reading or hearing anything specific about OH&S within the past year. The purpose of the doctoral study is to compare these results with that of Australian youth and determine if the current VET programmes are relevant and comprehensive enough in the eyes of the trainee. The research will focus upon qualitative responses from the trainee regarding the hazards they perceive within their workplaces.

The survey also found that 50% of youths would remain at work even if their employer refused to fix a dangerous situation. Young people are often reluctant to speak up if they see a hazardous situation, often fearing reprisal from their employer (Beharie 2003).

Training method delivery is another area of concern. When delivering training to young people, it is not enough to simply tell a young worker to read a company manual and expect them to both retain and understand the material. Young people seem to respond best to both visual and audio stimulation.

They are often driven by their need for fast-moving and loud activities. Training that does not take this into account may lack efficacy and come across as monotonous (Beharie 2003).

With the introduction and mandatory compliance of the 'Green Card'¹ in the construction industry, safety inductions are a pre-requisite to working on a building site. Where the Green Card ceases in its effectiveness is the lack of compulsory observation of the tasks that are performed by the worker are in fact carried out in a 'safe' way. Competency Assessments are lacking in the industry as attainment of a trade certificate or ticket at the start of a workers career is considered enough training. The skills and competencies are not revisited or checked to see that they are maintained, particularly in the area of safe work practices and many trades people end their education at the completion of their apprenticeships. At present the only compliance mandate is that the Green Card must be renewed every three years. This renewal has received considerable criticism by the housing project builders and their trades people as the view within the industry is that of 'skilled for life' once a trade certificate is gained and any revisiting of their skills and competencies is viewed as an insult and a threat.

The doctoral research study aims to provide evidence to highlight the need for more VET training in the areas of working safely and maintaining safe work practices and environments particularly in the 15-19 age group. It will highlight the lack of observation and competency assessment criteria in order to ensure that 15-24 year olds are working at a safe level in a safe working environment. It aims to encourage better safe work practices among older workers who act as role models and mentors for the 15-24 age group. It hopes to identify those businesses working in a safer manner than most, thus reducing injury/disease incidences in the work place, and promotes them as 'best practice' to set a benchmark for others to aspire to. However, to do so involves confronting several complications in collecting the data.

Complications of Collecting the Data

¹ The Green Card Safety Induction run by the Housing Institute of Australia asks the worker to identify the known hazards, assess the risk and have in place control mechanisms to eliminate or reduce the risk to an acceptable level. Renewal of the Green Card is achieved by attending the repeated safety induction course.

The complications of conducting research in the area of safety with 15-19 year olds are:

1. That it is a highly emotive area that discusses potential injury of our children. Added to this is that teenagers are generally highly emotional themselves as they try to bridge the gap between childhood and adulthood.
2. Low levels of literacy are common in 15-19 year olds in trade apprenticeships with many attaining only their Year 10 school certificate. While most students have left the school environment and have moved straight into VET training facilities such as TAFE, others have left school some year's earlier and received traineeships in order to provide valuable skills training. These students literacy levels may have fallen below that of when they last graduated from school, particularly if they have experienced a period of unemployment.
3. Power of access – borrowing people's time. In order to administer the guided interviews, time is needed within their normal training sessions at TAFE. This is difficult to coordinate around the trainer's set curriculum and the researchers work commitments.
4. Defensive trainers. The results of the interviews and details of the questionnaires may be taken as an attack on the trainer's current competence. Some people become defensive when an outsider questions their domain.
5. Commercial Confidences: The results of the interviews will have a 'sharing and baring' theme which could expose those businesses that exhibit unsafe workplace environments, thereby placing them in a compromising position.

While each of these is an issue in itself this paper is focusing on the area of low literacy levels particularly in the 15-19 age group and attempts to overcome this issue with guided interviews using pictures as a data collection method.

Exploring the Use of Visuals in Guided Interviews Precedents

The mixed mode data collection methods in the proposed doctoral study will use both quantitative and qualitative methods (Denzin & Lincoln 1994). This paper however concentrates on exploring the most effective techniques used to acquire valid and insightful data regarding the opinions of 15-19 year olds that lie at the heart of the investigation. Although written questionnaires can be, and will be, used to gather data in this study, they will be simplified and look for yes/no answers and simple limited response answers. Further, a review of research literature has indicated that guided interviews might be an appropriate instrument to accompany the written questionnaires to attain more insightful data. In order to gain access to the student's opinions as well as engage them in completing the questionnaire it is thought that a more ethnographic approach using guided interviews together with pictures to evoke comment would be of benefit. This interaction is based on the Interviewer producing real artifacts to stimulate Interviewee responses with the Interviewer role being either open or scripted interaction. It is proposed that a series of pictures displaying unsafe workplace scenarios requiring comments from the students would be issued to 1st - 4th year apprentices in trades involved in housing construction. The information gained from these 'comments' can be compared throughout the year levels to document levels of understanding and areas needing improvement.

Although research using artefacts such as pictures as a data collection method is not extensive, the current literature indicates that the reasons for using visuals in research are varied. These could be modelled as an aid to clarify meaning and to elicit emotional involvement.

Figure 4: The Use of Visuals as a Data Collection Mode

Clarify Meaning	<ul style="list-style-type: none">• Aid Communication• Intellectual Disabilities• Aid Children's Learning• Conveying Complex Situational Meaning
Emotional & Value Involvement	<ul style="list-style-type: none">• Engaging Participants Emotionally• Eliciting Conceptual Responses• Focussing on Competing Concepts (Grid)

The Rorschach Inkblot Test (Exner, 1986) is possibly one of the most broadly known uses of pictures as a means to gather emotive data from research subjects. In describing the blot, it's ambiguity is of great benefit because subjects do not realize what they were revealing in their descriptions and those administering the test gain insight into their subjects mental stability; unbeknown to the subject. But many professionals feel that the Rorschach is outdated, inaccurate, and meaningless. For example:

"The only thing the inkblots do reveal is the secret world of the examiner who interprets them. These doctors are probably saying more about themselves than about the subjects." (Anastasi, 1982).

This comment seems to indicate that the Rorschach is potentially unreliable, easily misinterpreted, and essentially *not* a valid means of determining what it claims to detect, but it could argued that more will be revealed by this method than by simply asking a question.

Shani & Rosenberg (1992) developed a burn prevention educational programme for schools in Israel using pictures as a set of 60 slides that showed dramatic hazardous situations and the consequences of these situations in the form of injuries. The research showed that it was the use of pictures that reduced the rate of injuries of children in the home environment; that other methods such as discussions, storytelling and literature were insufficient. 15-19 year olds, although no longer little 'children', are moving from this developmental stage into adulthood. Questionnaires when issued in

the traditional sense of question and answer could be viewed as a 'test'. Those students who have left school because of poor grades are not so likely to warm to this test and may not be willing to complete a standard questionnaire sufficiently. Using guided interviews with pictures as the focal point should place the student in a familiar area or comfort zone, similar to their past experiences as primary school children with literature. Pictures are usually more interesting and evoke emotions, drawing the viewer in.

Pine et al (2005) conducted research into the use of picture-based visual probe tasks as a method to integrate research on adult anxiety, pediatric anxiety, and cognitive neuroscience. Their argument for this method was that many recent neuroscience studies used evocative facial displays to study emotion (Davis & Whalen 2001). Their studies found that angry faces were capable of capturing attention, evoking emotion, and engaging brain regions involved in interactions between cognitive and emotional processes. The research further related this method to evoking emotional responses to pictures of angry faces with children.

Stock et al (2004) conducted research in testing and assessment of individuals with intellectual disabilities. They found that significant impairments in literacy can make common formats for soliciting objective and subjective feedback-such as written questions and answers-inaccessible to many people with intellectual disabilities. A pilot test of an Internet-based multimedia testing and assessment system, employing audio, video, and picture supports, enabled individuals with intellectual disabilities to more independently complete online tests and assessments. The comparison between the intellectual disabled and 15-19 year olds is not too say that all 15-19 year olds have learning disabilities; rather that both groups have low literacy levels and that the use of pictures was more accepted than other data collection methods.

The Repertory Grid Technique (Kelly cited in Scheer & Catina 1996, Reger, 1990) is a form of interactive discussion where the subject is instrumental in designing personal constructs with the guidance of an investigator. It involves forming a grid that represents personal subjectivity through comparison, rating and grouping procedures that results in a list of bi-polar constructs. The

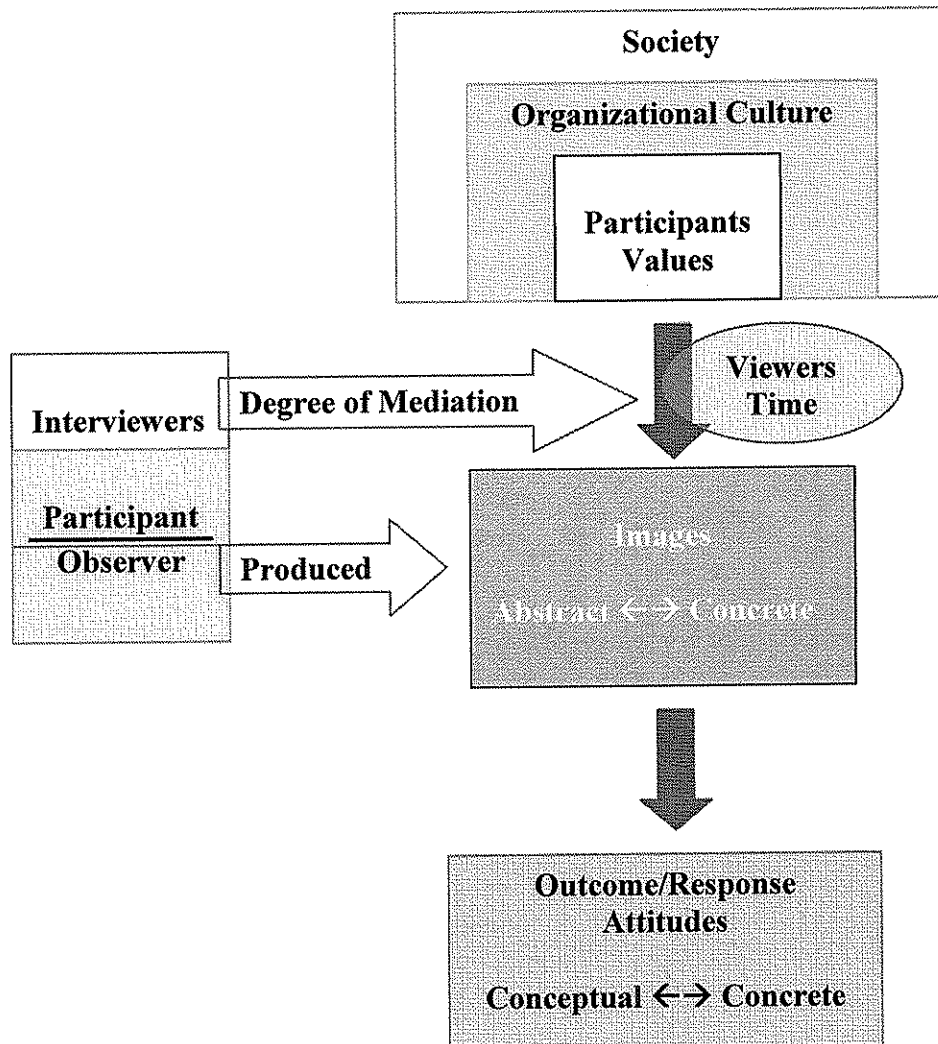
interviewee is often asked to make decisions based upon cards representing the constructs.² The Repertory Grid Technique is a type of cognitive mapping used to reveal conceptual ideas that the subject values as important (Kelly 1955, Reger 1990). The use of a grid or matrix is a tabular or pictorial diagrammatic method to represent data through a guided interview between the subject and investigator. The information obtained is highly individual although there is a possibility of bias due to the considerable influence of the investigator.

Modelling Guided Interviews

There are specific reoccurring components of these interview processes; the interviewer, the interviewee, the images, the guidance and the outcome. These can be modeled as follows:

² Although developed by Kelly in 1955, the grid is still used today often with a 6-point scale to assess the elements with respect to the constructs.

Figure 5: Guided Interview Constraints



This model depicts the participants within the interview as part of the organisational culture within society as a whole entering the interview with their own set of values. The degree to which these values are undermined is determined by the degree of mediation on the part of the interviewer who can choose to have either a more participatory or more observatory role within the interview. In this model time is a constraint as to how detailed a response the pictures will evoke. The images themselves can be abstract as in Rorschach Inkblot Test or concrete as in a photograph of a severed electrical wire. The responses to these images can be either attitudinal concepts or concrete opinions.

Taking the previously described interactive interview process into account, where the interviewer plays an 'active' role, there are a range of individual, subject and object relationships exhibited within guided interviews; these are depicted in the table that follows.

Table 3: A Comparison of Past Research to the Method of Guided Interviews Using Pictures

<u>Criteria</u>	Rorschach Ink Blot Test	Shani & Rosenberg	Pine et al	Stock et al	Kelly's Repertory Grid	Guided Interviews Using Pictures
Images	Abstract	Concrete	Abstract	Concrete	Abstract	Concrete & Abstract
Participants / Interviewer	Scripted	Open	Open	Open	Scripted	Open
Response	Conceptual	Concrete	Conceptual	Concrete	Conceptual	Conceptual & Concrete

Examining the categories within the table above, it can be seen that these previous methods using artifacts as an ethnographic tool for data collection have certain similarities and differences that characterize the interaction.

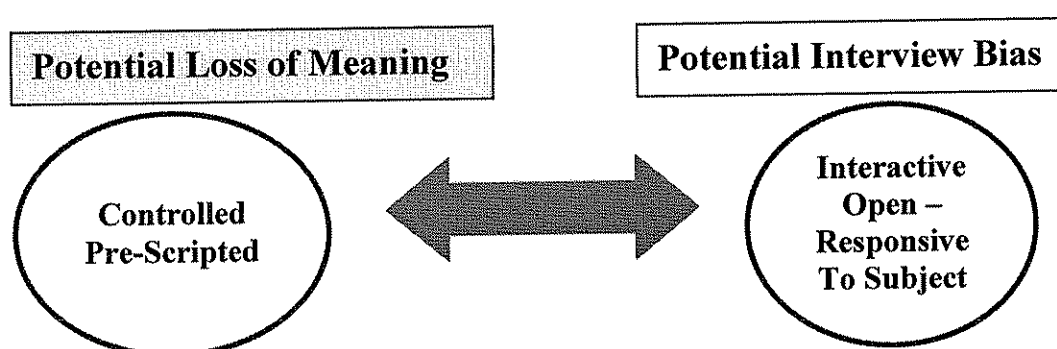
1. They use both abstract and conceptual imagery.
2. They are either scripted or more open interviews.
3. They elicit both concrete and conceptual responses.

Figure 6: Previous Methods Using Artifacts as an Ethnographic Tool



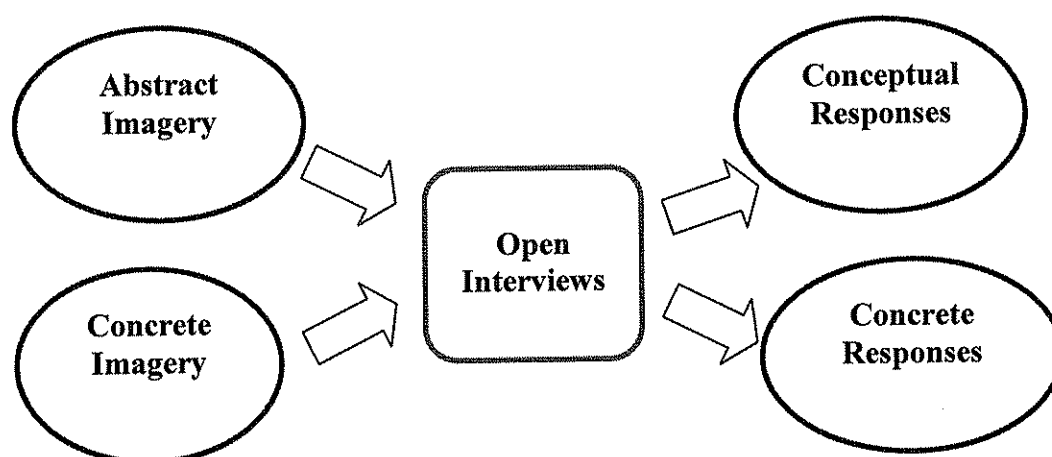
This presents research projects using guided interviews with two main choices according to the situation and the participants. The first issue is the width of the interviewer's role. How much guidance should be given to enlist sufficient interaction between the interviewer and participant? Once the researcher crosses the line to the mode of Participant / Observer the issue of bias creeping into the research data is multiplied. The diagram that follows illustrates the continuum of an interviewer's role.

Figure 7: Interviewer Roles



The second is the issue of levels of abstraction and conceptualization both in the artifacts presented and in the responses solicited. Reviewing the previous guided interviews we can see that the imagery that is used is both abstract and concrete, using open interviews that elicit both concrete and conceptual responses as the model that follows shows.

Figure 8: Research Model Guided Interviews Using Pictures



Forming a Framework for the Research

Considering the options available for the guided interview process and the implications of the choices between methods, the situation is considered *paramount*. The youth and literacy of the participant group indicate that 'concrete images' with semi scripted guidance should aim to produce both concrete and conceptual responses. By showing the respondents pictures of unsafe building practices throughout the guided interview it is hoped that they will openly discuss what they see and offer alternatives that reinforce a safer way to work.

What is the rationale for the proposed project to use concrete images within guided interviews? What are the advantages of showing research subjects pictures as opposed to written or verbal questionnaires?

1. It will lead the subject into a detailed scenario enabling them to use their own words and descriptions to give a comprehensive insight into their values and beliefs.
2. It will allow the details to be discussed with a joint frame of reference, to keep the discussion on track.
3. It will allow the subject to evoke or convey emotional responses as well as produce 'definite' concrete responses.
4. It will reduce the amount of words used to describe the scenario. This is of particular advantage when dealing with the 15-19 age group in work trades as they are particularly uncommunicative in formal situations.

Conclusion

The 15-19 age group is a challenging group to conduct research with as the personality traits of this group are unique; they are highly emotive and often non communicative. This paper has proposed that the use of guided interviews using pictures will produce more accurate, emotive and insightful responses from the 15-19 age group as a research tool rather than traditional data collection methods for the proposed doctoral thesis. It has explored the use of this technique from others in the field and

produced a model from which to work from in future research projects. This may be a case of 'a picture paints a thousand words' (Barnard 1921). Perhaps this is a case where introducing risk with the research method may eventually contribute to reducing risk in industry?

Acknowledgements

I am very grateful to Dr. Llandis Barratt-Pugh for his continual support and thoughtful comments on this paper. I would also like to thank my reviewers for helping me improve this paper.

References

- Anastasi, A. (1982). *Contributions to Differential Psychology*. Centennial Psychology. New York: Praeger.
- Baker, S. (2004). Young Workers Deserve A Safe Workplace. *ISHN*, 38(9), 60.
- Barratt-Pugh, L. (2004). *The Discourses Associated With the Frontline Management Initiative and Their Relationship to Managing Practice*. UWA, PhD Thesis.
- Beharie, N. (2003). New kid on the block. *OH & S Canada*, 19(4), 30-38.
- Brown, D. (2003). Many young workers die before first payday. *Canadian HR Reporter*, 16(9), 6.
- Clegg, S. (1975). *Power, Rule and Domination: A Critical and Empirical Understanding of Power in Sociological Theory and organisational Life*. London: Routledge & Kegan Paul.
- Clegg, S, Hardy, C & Nord, W. (1996). *Handbook of Organization Studies*. London: Sage Publications, pp 678 – 702.
- Davis M, Whalen PJ: The amygdala: vigilance and emotion. *Mol Psychiatry* 2001; 6:13-34.
- Denzin, N.K. & Lincoln, Y.S. (1994). *Handbook of Qualitative Research*. Sage, Thousand Oaks.
- Exner, J.E. (1986). *The Rorschach: A Comprehensive System*. 2 ed. New York: Wiley 1986.
- Freiman, C. (2003, December). And the survey says: youths need more training, info. *OH & S Canada*, 19(8), 19.
- Frone, M.R., (1998). Predictors of Work Injuries Among Employed Adolescents, *Journal of Applied Psychology*, 0021-9010, August 1, 1998, Vol. 83, Issue 4.
- Garrick, J. (1998). *Informal Learning in the Workplace*. Routledge, London.

- Gee, J.P. (1996). *Social Linguistics and Literacies*. Taylor and Francis, London.
- Giddens, A., (1984). *The Constitution of Society: Outline of the Theory of Structuration*. Berkeley, University of California Press
- Hassard, J. (1953). *Sociology and Organisation Theory: Positivism, Paradigms and Postmodernity*. Cambridge University Press.
- Kelly, G.A. (1955). *The Psychology of Personal Constructs*. New York: Norton.
- Martin, J. (1992). *Cultures in Organisations: Three perspectives*. Oxford University Press.
- Morley, I.E. (1991). *A Social Psychology of Organizing: People, Processes and Contexts*. University Press Cambridge, Great Britain.
- National Occupational Health and Safety Commission NOHSC (2005) *National Standard For Construction Work*. Available online at www.nohsc.gov.au/nationalstrategy
- Pine, D.S., Mogg, K., Bradley, B.P., Montgomery, L., et al. (2005). Attention Bias to Threat in Maltreated Children: Implications for Vulnerability to Stress-Related Psychopathology. *The American Journal of Psychiatry*, 162(2), 291-296.
- Reger, R.K. (1990). Managerial thought, structures and competitive positioning. In A. Huff (Ed.), *Mapping Strategic Thought*. Chichester, Wiley.
- Scheer, J.W. & Catina, A. (1996). Empirical Constructivism in Europe – The Personal Construct Approach. *Giessen: Psychosozial Verlag*, pp. 13-17.
- Shani, E., Ayalon, A., Hammad, I.A., Sikron, F. (2003). What Picture is Worth a Thousand Words? A Comparative Evaluation of a Burn Prevention Programme by Type of Medium in Israel. *Health Promotion International*; Dec 2003; 18, 4.
- Schulte, C., et al. (2005). Integrating Occupational Safety and Health Information Into Vocational and Technical Education and Other Workforce Preparation Programs. *American Journal of Public Health*, 95(3), 404-411.
- Schein, E.H. (1965). *Organizational Psychology*. Englewood Cliffs, NJ: Prentice-Hall.
- Smith, E (1997). *Workplace Learning in Apprenticeships: Some Research Results*, paper presented to the Learning Through Work Conference, Australian Competency Research Centre, Melbourne, May.
- Smith, S. (2004). Protecting Vulnerable Workers. *Occupational Hazards*, 66(4), 25-28.
- Stock, S., Davies, D.K., & Wehmeyer, M.L. (2004). Internet-Based Multimedia Tests and Surveys for Individuals with Intellectual Disabilities. *Journal of Special Education Technology*, 19(4), 43-47.
- The Occupational Health and Safety Act 1984. *Safetyline – Online Acts*. Available online at: <http://www.safetyline.wa.gov.au>

The Occupational Health and Safety Regulations 1996. *Safetyline – Online Acts*. Available online at: <http://www.safetyline.wa.gov.au>

Young, L. (1998, June). Changing the face of safety. *OH & S Canada*, 14(4), 24-30.