

Cardiff School of Sport
DISSERTATION ASSESSMENT PROFORMA:
 Empirical ¹

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Comments	Section		
	Title and Abstract Title to include: A concise indication of the research question/problem. Abstract to include: A concise summary of the empirical study undertaken.		
	Introduction and literature review To include: outline of context (theoretical/conceptual/applied) for the question; analysis of findings of previous related research including gaps in the literature and relevant contributions; logical flow to, and clear presentation of the research problem/ question; an indication of any research expectations, (i.e., hypotheses if applicable).		
	Methods and Research Design		

¹ This form should be used for both quantitative and qualitative dissertations. The descriptors associated with both quantitative and qualitative dissertations should be referred to by both students and markers.

	<p>To include: details of the research design and justification for the methods applied; participant details; comprehensive replicable protocol.</p>
	<p>Results and Analysis ²</p> <p>To include: description and justification of data treatment/ data analysis procedures; appropriate presentation of analysed data within text and in tables or figures; description of critical findings.</p>
	<p>Discussion and Conclusions ²</p> <p>To include: collation of information and ideas and evaluation of those ideas relative to the extant literature/concept/theory and research question/problem; adoption of a personal position on the study by linking and combining different elements of the data reported; discussion of the real-life impact of your research findings for coaches and/or practitioners (i.e. practical implications); discussion of the limitations and a critical reflection of the approach/process adopted; and indication of potential improvements and future developments building on the study; and a conclusion which summarises the relationship between the research question and the major findings.</p>
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² There is scope within qualitative dissertations for the RESULTS and DISCUSSION sections to be presented as a combined section followed by an appropriate CONCLUSION. The mark distribution and criteria across these two sections should be aggregated in those circumstances.

CARDIFF METROPOLITAN UNIVERSITY

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CARDIFF SCHOOL OF SPORT

DEGREE OF BACHELOR OF SCIENCE (HONOURS)

SPORT AND EXERCISE SCIENCE

**THE USE OF IMAGERY BY HIGH AND LOW
ABILITY GOLFERS: A QUALITATIVE STUDY**

**(Dissertation submitted under the discipline of
PSYCHOLOGY)**

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TABLE OF CONTENTS

Acknowledgements	i
Abstract	ii
Chapter One: Introduction	
1.1 Introduction	1
Chapter Two: Review of Literature	
2.1 Literature Review	3
Chapter Three: Method	
3.1 Purpose and Rationale	9
3.2 Participants	9
3.3 Interviews	9
3.4 Procedure	11

3.5 Data Analysis 11

3.6 Trustworthiness and Credibility 12

Chapter Four: Results and Discussion

4.1 Results and Discussion 14

Chapter Five: Summary and Conclusion

5.1 Summary and Conclusion 24

References

Reference List 27

Appendices

Appendix A – Participant Consent Form 34

Appendix B – Participant Information Sheet 35

Appendix C – Interview Guide 37

Appendix D – An Example Interview Transcript	40
Appendix E – High Skilled Table of Results	57
Appendix F – Low Skilled Table of Results	63

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ABSTRACT

In the last three decades, despite the extensive body of literature that has focussed on the use of imagery in a sport setting, very little research has explored the differences in imagery use between high and low ability athletes. The purpose of this study was to address this oversight by exploring imagery use by high and low ability golfers. A qualitative approach was employed using an interview guide to gain a more fine-grained understanding of participants' experiences. Participants were 8 amateur golfers (4 = high ability and 4 = low ability). Inductive content analysis of the data suggested that high ability golfers used CS and MG-M imagery to the same level as their lower ability counterparts. MG-A and MS imagery was employed more by the high skilled participants and CG imagery more by the low skilled golfers. In terms of imagery outcome, high ability golfers conveyed greater positive outcomes than their low ability counterparts. There were also differences in imagery use for specific shots. The findings have implications for the use of imagery across a variety of performance contexts.

CHAPTER ONE

INTRODUCTION

According to Munroe-Chandler and Morris (2011) imagery is 'one of the most well-known mental training tools used by recreational, amateur, and professional athletes alike' (p.275). Many professional athletes have publically endorsed the use of imagery and attributed the role imagery played in helping them achieve and consistently sustain excellence within their specific sports. Famous Olympic gold medal winner Sylvie Bernier describes her extensive use of imagery as integral to her performance preparation;

I did my dives in my head all the time. At night, before going to sleep, I always did my dives. I started with a front dive, the first one that I had to do at the Olympics, and I did everything as if I was actually there. I saw myself on the board with the same bathing suit. Everything was the same. I saw myself in the pool at the Olympics doing my dives. If the dive was wrong, I went back and started over again. It takes a good hour to do perfect imagery of all my dives, but for me it was better than a workout. I felt like I was on the board. Sometimes I would take the weekend off and do imagery five times a day (Orlick and Partington, 1988, p. 112).

One area that is of particular interest to researchers and practitioners alike, but has received limited research attention is the differing characteristics of high and low level performers. For example, there is some evidence to suggest that elite, high ability and successful athletes use significantly more imagery than their less skilled colleagues (Callow and Hardy, 2001; Cumming and Hall, 2002a; 2002b; Salmon, Hall and Haslam, 1994). However, overall findings to date have been somewhat equivocal (Barr and Hall, 1992; Greg and Hall, 2006; Hall, Mack, Paivio and Hausenblas, 1998; Shearer, Thomson, Mellalieu and Shearer, 2007). One of the criticisms of this body of research has been its reliance on the Sports Imagery Questionnaire (SIQ) as the preferred means of investigating athletes' imagery use (Callow, Hardy and Hall, 2001; Greg and Hall, 2006; Munroe, Hall, Simms and Weinberg, 1998). Related to this has been a dearth of qualitatively research through which athletes' imagery used could be meaningfully explored.

Consequently, the purpose of this study was to qualitatively examine the use of imagery by high and low ability golfers. Participants comprised members (n=8) of local golf clubs and the 1st team at Cardiff Metropolitan University. Semi structured interviews, conducted with the use of an interview guide were inductively content analysed within a deductive framework to explore their use of imagery.

CHAPTER TWO

LITERATURE REVIEW

Imagery is one of the most important psychological skills employed within the competitive environment of modern day golf. Widely renowned golfers Ernie Els, Tiger Woods and Paul Lawrie are among some of the many high profile professional golfers who have been known to use imagery and not only espoused its virtues, but ascribed it a central role in attaining major championship success. Indeed, eighteen time major winner Jack Nicklaus has been quoted many times saying that “hitting a good golf shot is 10% swing, 40% stance and setup, and 50% the mental picture of how the swing should occur” (Weinberg and Gould, 2011, p.293). With an all-time golfing great like Nicklaus attributing 50% of performance to this psychological skill, the level of importance imagery can have on competitive golf is unmistakable.

An often quoted definition by Richardson, (1969, P 2-3) defined imagery as “those quasi-sensory and quasi-perceptual experiences of which we are self-consciously aware and which exist for us in the absence of those stimulus conditions that are known to produce their genuine sensory or perceptual counterparts”. White and Hardy (1998) suggested imagery “differs from dreams in that we are awake and conscious when we form the image” (p.389) More recently Cumming and Ramsay (2009) defined imagery as “an experience that mimics real experience, and involves using a combination of different sensory modalities in the absence of actual perception” (p.5). An extensive body of research has explored the relationship between imagery and performance, which taken together suggests that imagery has been widely employed by athletes to enhance both skill acquisition and performance (Callow and Hardy, 2005; Cumming and Ramsay, 2009; Hardy, 1997; Martin, Moritz and Hall, 1999; Munroe, Giacobbi, Hall, and Weinberg, 2000; Orlick and Partington, 1988; Vealey, 1994; Weinberg, 2008).

A central tenet of much of the research that has explored imagery has been to understand the athletes’ use of imagery, with the eventual aim, to develop effective and contemporary imagery training programmes. One feature of this research has been to consider and explain why athletes image and how they use imagery (Cumming and Hall, 2002). Paivio’s (1985) analytical framework for imagery effects

was constructed to help elucidate this phenomenon. It was further conceptualised when developing the Sport Imagery Questionnaire (SIQ) by Hall *et al.* (1998). Paivio initially suggested two functions of imagery, cognitive and motivational, which operated at both general and specific levels (cognitive general, cognitive specific, motivational general and motivational specific). Hall *et al.* further developed this framework by dividing motivational general into two further subtypes, motivational general arousal (MG-A) and motivational general mastery (MG-M). Subsequently, Martin *et al.* (1999) devised an applied model of imagery, which denoted its use by athletes to attain a number of cognitive, affective and behavioural outcomes. Martin *et al.*'s (1999) model of imagery use draws on Hall *et al.*'s (1998) taxonomy and uses it as the basis for the types of imagery athletes' use. As a result, Hall *et al.*'s five types of imagery were included in the model;

- Cognitive general (CG) – this can be described as imaging full routines, game plans and strategies (zonal marking system in soccer, a serve and volley strategy in tennis or a floor routine in gymnastics).
- Cognitive specific (CS) – imagery of specific sporting skills (a high fade in golf, a forward defensive in cricket or a line out in rugby).
- Motivational general mastery (MG-M) – imagery that is related to mastering and overcoming challenging situations (imaging being mentally tough or maintaining focus when confronted by problems – i.e. hitting the ball around a hazard in golf).
- Motivational general arousal (MG-A) – this can be described as imagery that represents feelings, emotions and somatic experiences (stress, anxiety and excitement. i.e. feeling stressed in a competitive scenario).
- Motivational specific (MS) – imaging specific goal achievement (winning a trophy, collecting a medal).

Martin *et al.* (1999) considered these five imagery types to be orthogonal, meaning that while they can be used independently, it is also plausible that two or more types can be used concurrently. Indeed, Hall *et al.*'s (1998) model generally and the SIQ specifically (and subsequent modified versions) have been the preferred means of investigating imagery use by athletes for over a decade (Arvinen-Barrow, Weigand,

Thomas, Hemmings, and Walley, 2007; Callow *et al.*, 2001; Munroe *et al.*, 1998). Studies that have employed the SIQ have explored imagery use in relation to a number of psychological constructs (Abma, Fry, Li, and Relyea, 2002; Beauchamp, Bray, and Albinson, 2002; Callow *et al.*, 2001). The findings that have emerged from this research suggest that imagery has a positive effect on sport confidence, self-efficacy, anxiety and goal orientation (Beauchamp *et al.*, 2002; Callow *et al.*, 2001; Coelho, Keller, Kuczynski, Ribeiro, De Araujo Montoro Lima, Greboggy and Stefanello, 2012). Moreover, whilst employing the SIQ, type of sport, time of season, skill level and gender have all accounted for differences in athletes' imagery use (Cumming and Hall, 2002a; Gammage, Hall and Rodgers, 2000; Greg and Hall, 2006).

Imagery type and its effect on performance have been of particular interest in some of the previous research (Mahoney and Avenier, 1977). Hall, Rodgers and Barr (1990) found that almost all athletes reported using the five imagery types. However, differences have emerged when variables such as type of sport (Munroe *et al.*, 1998), time of season (Cumming and Hall, 2002a) and gender (Campos, Perez-Fabello and Gomez-Juncal, 2004) have been explored. Another factor related to the potential differences in an athletes' imagery use is ability level (Short, Ross-Stewart and Monsma, 2006). In their review of the imagery literature, Cumming and Ramsay (2009) concluded that elite athletes regularly use imagery as a technique to aid performance. Meanwhile Cumming and Hall (2002a; 2002b) and Hall *et al.* (1998) all found that lower skilled athletes used imagery significantly less than higher ability/more experienced athletes. These findings could be attributed to Vealey and Greenleaf's (1998) suggestion that beginners possess a vague image of what a particular skill should look like, unlike elite athletes who retain a stronger and more precise image. Therefore, it is conceivable that higher ability athletes will image more regularly than novice performers. In contrast, Barr and Hall (1992) found that despite differing ability levels, the majority of rowers used imagery. However, they did find a difference in the type and function of imagery use. For example, the higher skilled imaged themselves executing a pre-race routine (CG), whilst the less skilled rowers imaged themselves rowing (CS) with bad practice. In contrast, Salmon *et al.* (1994) found that elite athletes employ imagery more frequently than less skilled individuals, regardless of the function imagery served. More specifically, Hall *et al.* (1998) found

that ability level had a significant effect on the purpose for which imagery was used; elite athletes used imagery more for the motivational function and non-elite athletes for the cognitive function (Hall *et al.*, 1998).

Early research revealed inconsistent results when investigating the difference in imagery use between higher level athletes compared to lower level athletes. No significant differences were found when exploring whether imagery perspectives differed in racquetball players (Meyers, Cooke, Cullen and Liles, 1979). However, Mahoney and Avenier (1977) found gymnasts who were unsuccessful in Olympic team qualification used less internal imagery than those who were successful in making the team. More recently, Shearer *et al.* (2007) explored the relationship between imagery type and ability level in 70 elite and 71 non-elite soccer, rugby and wheelchair basketball performers. The findings indicated that the lower skilled group used more CS, CG and MS imagery, and less MG-M imagery than elite athletes. These contradictory findings could be explained by the different sports sampled in the three studies. Munroe *et al.* (1998) and White and Hardy (1998) both suggested that imagery use can vary as a function of sport. Specifically, White and Hardy (1998) found imagery use differed between canoeists and gymnasts, which they described as 'reflecting the differing task demands of each sport'. These findings suggest that due to the individual nature of sport, an athletes' imagery use will fluctuate. Consistent with these findings, Munroe *et al.* (1998) found MG-M, MS and MG-A imagery significantly increased at differing times of the season, while CS imagery increased for the sports of fencing, field hockey, rugby, soccer, and wrestling. Supporting these conclusions, Greg and Hall (2006) suggested that athletes in different sports use imagery to a different extent. Therefore, to gauge a conceptual understanding of how an athlete's ability level can account for differences in imagery use, the sport played has to be taken into consideration.

Exploring the relationship between imagery and confidence, Callow and Hardy (2001) further examined the moderating variable of ability level on imagery use. Findings indicated that higher skilled netballers with high levels of confidence used more MS imagery than their lesser confident counterparts and lower skilled netballers with high confidence levels used more CG and MG-M. In addition, Fischer (2005) found that high level divers and swimmers used more CG, CS, MG-A and MG-M imagery compared with their lower level counterparts. These findings could be

explained by Hardy and Callow's (1999) suggestion that, once an athlete has acquired a degree of expertise, imagery has a further beneficial effect on performance. Although the aforementioned studies give the impression that ability level is a key factor in the use of specific imagery functions, the method by which ability levels have been categorized should not to be overlooked. For example, classifications such as beginners, recreational, academy and county have been employed by a variety of studies (Arvinen-Barrow *et al*, 2007; Callow and Hardy, 2001), despite Greg and Hall's (2006) concerns that "these methods of categorizing athletes' skill levels have limitations" (p. 3) and that ability levels need to be more objectively quantified (Greg and Hall, 2006). Handicap, in the sport of golf, is such a quantifiable and objective measure of ability, as it represents a player's ability regardless of external factors.

A number of researchers have suggested imagery use is easier for those who use closed skills without the distraction of opposition players (Highlen and Bennett, 1979). Theoretically, golf should therefore be a sport in which imagery is actively used to improve and execute performance. Research that has explored the effects of imagery in golf provides support for the use of imagery to enhance a number of performance variables (Bell, Skinner and Fisher, 2009; Bell, Skinner and Hallbrook, 2011; Meacci and Price, 1985; Nicholls, Polman and Holt, 2005; Short, Bruggeman, Engel, Marbeck, Wang, Willadson and Short, 2002). Specifically, research that examined the relationship between imagery and performance in collegiate golfers proposed that there is a direct relationship between motivational general mastery (MG-M) imagery and enhanced performance (Beauchamp *et al.*, 2002). Additionally, Ramsay, Cumming and Edwards (2008) explored the effects of imagery direction on putting performance in university golfers and found that facilitative imagery had a positive effect on performance in comparison with a suppressive imagery group. An alternative study conducted by Martin and Hall (1995) found that beginners who used cognitive specific (CS) imagery had significantly increased voluntary practice time compared with a control group (no imagery) and outcome imagery group. These studies offer support for the suggestion that higher skilled athletes use imagery for the motivational function and low skilled athletes for the cognitive function (Hall *et al.*, 1998).

Recently, Greg and Hall (2006) similarly examined the relationship between skill level and age in the use of imagery by golfers, and found a significant correlation between handicap and imagery use. Three hundred and four male and female subjects participated in the study, with ages ranging from 18 to 87 and handicaps ranging from 0 to 63. They found that as an athlete's handicap decreased there was a corresponding increase in the use of CS, CG, MS, MG-M, and MG-A imagery. These findings are thought-provoking as they appear to provide evidence that higher skilled golfers use all functions of imagery significantly more than lower skilled ones. However, the main measurement tool used in this study, the Sports Imagery Questionnaire (SIQ; Hall *et al.*, 1998), has received some criticism in the imagery literature. In addition, although it has been recognized that there are advantages to using a quantitative approach (Patton, 1987), Short *et al.* (2006) suggested that "the complex processes of imagery cannot be neatly separated into one of the five 'functions' of the SIQ as proposed" (p.53). Further, Abma *et al.* (2002) proposed that an inherent weakness of this questionnaire is that it gathers data that may be "too restrictive to reflect the true nature of the imagery" (p. 73). As a result, to gain a more fine-grained understanding of how a golfer's ability level can affect imagery use, a qualitative method should be employed.

Unfortunately, the aforementioned findings therefore fail to elucidate the differences in imagery usage by high and lower skilled athletes. Hardy and Callow (1999) proposed that the athlete's expertise has a moderating effect on imagery and how frequently it is used. Nevertheless, research to date has failed to explain why high or low skilled athletes use different types of imagery or if differences are evident within specific sports. Although, previous research has identified variations in imagery use by high and low ability athletes, there seems to be a lack of research comparing and contrasting high and low ability performers specifically in the sport of golf. Granted, Greg and Hall (2006) investigated the relationship between skill level and imagery use by golfers. However, the methodology employed precluded a detailed insight and comprehensive understanding of imagery use by golfers and the possibility that they use other types of imagery than those denoted by Hall *et al.* (1998) and Martin *et al.* (1999). The purpose of the present study, therefore, is to qualitatively examine the use of imagery by high and low ability golfers.

CHAPTER THREE

METHOD

3.1 Purpose and Rationale

The purpose of the study is to qualitatively explore the use of imagery by high and low ability golfers. To date, research that has examined imagery use by athletes with differing ability levels has largely employed a quantitative approach, using questionnaires as the preferred measurement tool (Arvinen-Barrow *et al.*, 2007; Callow and Hardy, 2001; Greg and Hall, 2006). However, as Silverman (2011) suggested, this type of approach can fail to elucidate key factors and lacks sensitivity to individual differences. In contrast, “a qualitative method permits the evaluator to study the issue in greater detail, and the data is not constrained by pre-determined categories of analysis, contributing to the depth and quality of the data” and thus provide for enhanced understanding (Patton, 1987, p.9). As a result, the present study employed a qualitative approach using an interview guide to gain a more fine-grained understanding of imagery use in high and low skilled golfers.

3.2 Participants

Participants were a purposeful sample of eight golfers with ages between 19 and 22. (*Mean* = 20.7 and *SD* = 0.48). According to Patton (2002, p.230), “the logic and power of purposeful sampling lie in selecting information-rich cases for in depth study”. For the purpose of the study, participants were required to reflect one of two ability groups, high skilled or low skilled. Golfers were categorised according to the guidelines of the council of national golf union’s unified handicapping system (CONGU, 2012, p.37). Therefore, one group comprised of amateur golfers with a handicap of five or below (*Mean* = 3.25 and *SD* = 1.09) and the other group included amateur golfers with a handicap of 21 and above (*Mean* = 22.75 and *SD* = 1.47). Participants were recruited from Cardiff Metropolitan University golf 1st team (n=2), Bournemouth golf club (n=2), Yeovil golf club (n=2), Isle of Whitmore golf club (n=1) and Northampton golf club (n=1).

3.3 Interviews

Interviews were conducted using an interview guide, designed specifically for the purpose of the study, based on an extensive review of the relevant research literature (e.g., Arvinen-Barrow *et al.*, 2007; Barr and Hall, 1992; Callow and Hardy,

2001; Greg and Hall, 2006; Hall *et al.*, 1998; Martin *et al.*, Paivio, 1985; Salmon *et al.*, 1994; Shearer *et al.*, 2007; White and Hardy, 1998). Gould, Eklund and Jackson (1993) and Thomas, Nelson, Silverman and Silverman (2010) recommended that in order to standardize the interview process, interviews should utilize the same procedure for each participant. Therefore, the same researcher conducted each interview. The use of the interview guide minimise interviewer effects and enhanced the effectiveness of the interview process (Patton, 2002). However, to increase the flexibility of the interview, the sequencing of the questions differed depending on the responses that were given (Driediger, Hall and Callow, 2006). Probes were used to enhance the depth and meaningfulness of responses (Patton, 2002).

Thomas *et al.* (2010) suggested the use of a pilot study can establish operational communication patterns and expose any issues within the interview guide. Hare, Evans and Callow (2008) additionally reported that the use of pilot interviews enables the interviewer to gain vital experience in refining and practicing interview skills and techniques. Thus, a pilot interview was conducted on an amateur golfer with a handicap of 16. Minor revisions were made following feedback from the pilot interview (e.g., changes to the wording of specific questions).

The interview guide comprised six sections (see appendix C). The first section was an introductory section, used to explain the purpose of the study and the role and rights of the participant. Greg, Hall and Hanton (2007) stated that including a definition ensures that each participant is thinking of imagery on the same wave length to the interviewer. Therefore, section two began with Cumming and Ramsay's (2009) and White and Hardy's (1998) definitions of imagery. Maykut and Morehouse (1994, p.81) proposed that to 'foster a climate of trust' the interviewer must establish rapport with the participant. Consequently, section two contained background questions used to familiarise the participant with the process and to ease them into the interview. Section three related to imagery use during practise and training with questions such as "*What sort of images were you forming when on the range hitting a long shot?*". Section four focused on imagery use during competition; the following is an example of a question included within this section "*Would you say you use more imagery during practise or during competition?*" The fifth section concentrated on the effectiveness of imagery. The final section provided the opportunity for

participants to ask any questions about the interview process and to express any thoughts which may have been omitted throughout the interview. Questions regarding type of imagery followed Martin *et al.*'s (1999) model of imagery use.

3.4 Procedure

Interviews were conducted face-to-face at a time and place convenient for participants. All participants were male and provided written informed consent (see appendix A). Each participant was made aware that they could leave the interview and study at any stage during the process (see appendix B). During the interview process, all participants were informed of the purpose of the study, the focus of the interview, and why the interview was being recorded. Furthermore, participants were advised about how the data would be used and that they would remain anonymous. Additionally, each participant was provided with the following definitions of imagery: *"Imagery is an experience that mimics real experience, and involves using a combination of different sensory modalities in the absence of actual perception"* (Cumming and Ramsay 2009, p.5) and *"it differs from dreams in that we are awake and conscious when we form the image"* (White & Hardy, 1998, p. 389).

The interviews lasted between 35 and 60 minutes depending on the length and depth of the participant responses. All interviews were recorded in their entirety and subsequently transcribed verbatim (Patton, 2002). Transcriptions were returned to participants for the purpose of member checking (Lincoln and Guba, 1985).

3.5 Data Analysis

Interview transcripts were analysed in accordance with Cote, Salmela, Baria, and Russell's (1993) guidelines for interpreting qualitative data. Cote *et al.* (1993) suggested that a key strength of following the procedure is that it "remains a flexible process which can be adapted to the individual under study" (p. 135). Tesch (1990) suggested that in order to develop an organised system from relatively unstructured data, two separate phases of analysis are vital. These phases are known as data organization and data interpretation. Cote *et al.* (1993) stated that these two phases can be further explained as creating tags and categories. The researcher created tags from the transcriptions which are defined by Tesch (1990) as a clear, concise piece of information which is meaningful on its own right. Cote *et al.* (1993)

summarised creating tags as extracting applicable portions of data from their context which will subsequently be re-contextualised in the next phase of analysis. The second data analysis process consisted of creating categories, which Cote *et al.* (1993) described as categorizing the tags that have similar meanings. Tesch (1990) suggested that the purpose of this second phase is to categorise the information in order to serve as a preliminary organised system. The tags and categories were produced whilst employing an inductively content analysis within a deductive framework (Miles and Huberman, 2002; Patton, 2002). Data collected was displayed into high ability and low ability tables (see appendix E and F). The resulting themes/categories subsequently formed the foundations of the discussion.

3.6 Trustworthiness, Reliability, Validity and Credibility

Miles and Huberman (2002) recognised that in qualitative research the skills and capabilities of the researcher are essential to the trustworthiness of the data. Suggestions have been made that the primary researcher should be cognizant with the topic of investigation (Miles and Huberman, 2002). A systematic review of the imagery literature was conducted to develop the researchers' knowledge base prior to the interview process. Newby (2010) suggested that reliability lies within the production of consistent results when repeating the methodology. Therefore, the use of an interview guide allowed for continuity for each participant. However, the use of a semi structured guide also permitted probing and embellishment. Moreover, reliability was enhanced with the employment of a pilot study. Silverman (2011) proposes that the use of a pilot permits the interviewer to gain confidence in the process and further increase reliability. External validity was improved by providing thick description using detailed quotes. This was achieved so that the reader can make their own interpretation of the data (Greg *et al.*, 2007).

The study aligned with a number of Lincoln and Guba's (1985) criteria for evaluating the credibility and trustworthiness of qualitative studies. Specifically, credibility was enhanced by the researcher's familiarity and experience in golf which enabled him to employ specific golfing terminology during the interview process. The completion of 'member checking' was likewise employed to enhance trustworthiness of data (Lincoln and Guba, 1985). This comprised of the transcripts being sent back to the

participants, which gave the opportunity for confirmation or rejection of the researchers' interpretation of the data. Miles and Huberman (2002) suggested that this process implemented the credibility of the study in conjunction with increasing trustworthiness and reliability.

CHAPTER FOUR

RESULTS AND DISCUSSION

The purpose of the present study was to qualitatively examine the use of imagery by high and low ability golfers. A number of themes emerged from the analysis of the data, which will be discussed here in a combined results and discussion section. In the main, the data coalesced into the five functions of imagery identified by Hall *et al.* (1998 - cognitive specific, cognitive general, motivational general-mastery, motivational general-arousal and motivational specific; CS, CG, MG-M, MG-A and MS). For ease of interpretation, participants 1, 2, 3 and 4 were the high skilled golfers and the low skilled golfers were participants 5, 6, 7 and 8.

Cognitive Specific (CS). All of the high and low skilled participants acknowledged the use of CS during practice or competition to image the process and technical aspects of specific shots. For example, participant 2 (high skilled) suggested:

you've got to work out everything else that goes around it, so if I had to play like a fade, umm I'd play like slightly a different spin, compared to if I was playing just a normal shot off the fairway so then like, it works on my technique more I think, focus more on the technique of the shot that I've got to play

This participant's use of cognitive specific imagery was consistent with the other high skilled golfers – all suggested that they used images of skill execution to reinforce the correct technical aspects of particular shots (e.g., for shots that required a greater degree of skill and precision). This finding is consistent with those of Fischer (2005) and Munroe *et al.* (1998) respectively, that high skilled golfers use CS imagery and that CS imagery can enhance the focus and performance of well-learned skills.

All low skilled participants also identified using CS imagery. For example, participant 5 suggested:

I'd image myself completing the skill perfectly from someone else's eyes, so that I can grasp the technical side of it, as in performing the different swing well and hearing the connection of the club on ball, it's what gives me confidence to try new skills.

However, participant 5 was one of a number of the low skilled participants who felt that their use of imagery not only reinforced correct skill execution (CS) but enhanced confidence (MG-M) because of the confidence derived from successful skill execution. For example, participant 7's confidence stems from imaging the various technical aspects that are imperative for a successful shot:

It just sort of like clears my mind of sort of what I need to do, it ticks the boxes off of those little processes. . . the grip, the back swing and it makes me feel more comfortable so yeh I guess more confident about it as well.

Evans, Hare and Mullen (2006) suggested that when an image contains correct skill execution and goal achievement, differentiation between which function the athlete is employing imagery for is difficult (Hare *et al.*, 2008). Hare *et al.* (2008) suggested that this is because the imagery may be serving a primary and secondary function, a finding that further supports those of Evans *et al.* (2006).

In contrast to Greg and Hall's (2006) and Cumming and Hall's (2002a; 2002b) suggestion that skilled athletes would use less CS imagery compared to the less skilled performers, the findings suggested that all participants regardless of skill level used images related to the correct execution of skills. However, the findings appeared to support Hall *et al.*'s (1998) suggestion that lower skilled athletes use imagery more for the cognitive specific function than the other functions.

Cognitive General (CG). A number of researchers have acknowledged differences in imaging general routines or strategies when comparing high and low skilled athletes (Fischer, 2005; Greg and Hall, 2006; Shearer *et al.*, 2007). Consistent with Callow and Hardy's (2001) findings, the low skill participants in the present study used more CG imagery than the high skill participants. To elaborate, three of the four low skilled golfers reported using CG imagery within practice or competition. For example, participant 6 imaged shots that gave him 'the best. . . possible stepping stone' for the next shot, while participant 5 suggested:

I image where the ball is going to land so that I can see what I can do next and what my next shot will be. I will be imaging my next shot as well rather than concentrating on the shot I've got to do first to get my ball there

Participant 5 explained that his images enabled him to establish what sort of strategy (shot) to use in future, while participant 8 perceived that his use of CG imagery also encompassed positive goal achievement (MS):

I don't think about a specific shot, I think about the hole as one, I literally just think about it as 5 shots in 1 kind of a thing... it's not like I think on this drive I'll draw it around the first tree and hit like a long 5 up to a wedge or something like that... it's not like I think about that. I think about the whole hole as one like getting a par

Once again, the images appeared to serve multiple functions, both cognitive and motivational. This type of imagery use is in line with the suggestion that imagery of the same content can be used to attain multiple outcomes (Evans, Jones, & Mullen, 2004).

Consistent with Shearer *et al.*'s (2007) findings, which highlighted lower skilled athletes use more CG imagery than their high skilled counterparts, only one high skilled golfer identified imaging strategies and routines. Participant 3 explained:

I then start to specify the sort of intensity I'm going to play, so the style I'm going to adopt, so if I image that and I feel it's a course I can attack, my images would be stonking a driver down there and hitting wedges in, sort of really aggressive towards the pin

Although only one high skilled golfer acknowledged using CG images, the participant regularly employed this type of imagery. However, overall findings support the notion that lower skilled athletes use more cognitive imagery than higher skilled athletes (Hall *et al.*, 1998).

Motivational General-Mastery (MG-M). Consistent with participants' use of CS imagery, all high and low skilled golfers reported using MG-M imagery. High skilled participant 1 suggested that he imaged the ball flight and instantly recognised whether or not that particular shot would be successful. In a similar vein, participant 3 explained how he derived confidence from imaging successful shots:

Like in my mind that's success, from a 50 feet putt, if I can see myself lagging it to 3 foot, I'm happy with that and that's what I'll see. Whereas with a 15 footer, I'll see it rolling in every time and that gives me confidence

This finding further supports Cumming, Law and Olphin's (2007) suggestion that MG-M imagery can enhance confidence. Interestingly two out of the four high skilled golfers suggested that their MG-M images comprised multiple indices of goal attainment. For example, participant 2 explained:

With a 10 foot, with my images, 9 times out of 10 I'd like look at myself putting it, sinking it and then you can hear like peoples claps and sort of thing, then you like imagine yourself going to pick the ball out of the hole and then marking down your score.

Meanwhile, participant 4 imaged 'successful outcome' (MG-M) and likened it to him being in 'a major tournament situation' when he can 'hear the crowd around them like cheering or clapping' (MS). This use of imagery further supported Evans *et al.*'s (2006) suggestion that one particular image may have two different functions. For example, participant 2 suggested:

So if I did image like every now and then I would try and image a bad shot with the 6 iron and then try and work out why I did it and then I would add little bits to the image that would make me hit a good shot next time

This participant further stated that he occasionally images bad practice to understand how he could alter technique (CS) for a successful shot (MG-M). Participant 3 also imaged bad practice so that when he returns to a similar shot, he knows how to correct that unsuccessful practice. These findings are consistent with Short *et al.*'s (2006) proposal that it is challenging to differentiate between functions when the image contains both correct technique application and successful goal attainment. Participant 4 illustrated this further:

when I'm walking to the ball just after I've hit a bad shot, I try and picture the swing that I've just done to try and get an understanding to why I've hit the shot, why I've carved it right or why I've shanked it... I try to just remind myself, so again, why I hit the bad swing and then I image myself doing it

again in the same position and hitting the ball successfully as opposed to carving it right

This participant also highlighted the potential for losing confidence from hitting a poor shot. However, he articulated being able to restore his confidence (MG-M) by firstly imaging the previous negative shot and secondly, imaging himself altering the technique of that shot (CS). This finding provides support for Nordin and Cumming's (2005) proposition that CS and MG-M imagery can have positive self-efficacy and performance effects.

Each low skill golfer acknowledged using MG-M imagery on more than one occasion and suggested that the images served to increase confidence. For example, participant 5 suggested:

Like even with my friends chatting, if they stopped I would image them chatting over me, so it's like imaging a hostile environment because if I imagine how hostile it can be, then that's like the worst it can get. So then I can play my shot regardless of the environment

This participant suggested his use of imagery enabled him to replicate challenging situations and overcome the demands of them. This use of imagery enabled him to attain levels of confidence in specific shots. However, two of the lower skilled golfers identified experiencing a negative outcome when using MG-M imagery. For example, participant 6 suggested that 'once I hit a few negative shots, you're imaging yourself, seeing the ball veer off to the right big time'. He elaborated, that once he began seeing undesirable practice, his images then focussed on adverse outcomes. Similarly, participant 8 reported that occasionally he concentrated on negative consequences as opposed to focusing on positive ones.

Findings from this study supported Hall *et al.*'s (1998) suggestion that high skilled athletes would use imagery for a motivational general function. However, since all low skilled golfers used MG-M imagery, these findings do not support Hall *et al.*'s (1998) proposal that less skilled athletes use imagery for a principally cognitive function.

Motivational General-Arousal (MG-A). Three high skilled participants acknowledged the use of MG-A imagery, however only one less skilled participant

identified this particular function of imagery when in practice or competition. Findings initially suggested that higher skilled golfers use MG-A imagery more often. However, low skilled participant 6 used images containing emotions and feelings:

I'd like to think ahead over the next like 4, 5 hours, think how I'd feel on the 18th tee, see how I, hopefully think how I'm feeling... just thinking how I'm feeling, so I'm imaging myself like 'ok this has gone well, just one more hole to go and then it's a good score'

This low skilled golfer's use of MG-A imagery was consistent with three of the four higher skilled participants. For example, high skill participant 2 suggested:

I'd start imaging quite like, through Friday. . . playing well through the round, and being in the mix all the way, and come down to maybe like the last, the last pairing, and things like that and then I'd sometimes imagine myself have a final winning putt

This participant explained that images of having control of his emotions in stressful situations such as being in contention of winning a tournament approaching the final hole, enhanced confidence in his ability and belief that he could win competitions.

Likewise, participant 3 imaged himself in challenging situations and having the confidence to achieve a positive outcome. He further suggested that he used these images to remove the negative feelings he experienced whilst practicing, and imaged himself being relaxed in demanding situations. Equally, participant 4 suggested 'when put in tricky situations or situations where I feel under pressure then just imaging myself doing it successfully'.

Although three of the four high skilled golfers identified using MG-A imagery, only one less skilled participant used imagery of this type. The findings for MG-A imagery were consistent with Hall *et al.*'s (1999) suggestion that higher skilled athletes use imagery more for a motivational function. Indeed, these findings also supported Cumming and Hall's (2002a; 2002b) and Greg and Hall's (2006) suggestion that higher level athletes use more MG-A imagery compared with their lower skilled counterparts. It also supports Munroe *et al.*'s (1998) suggestion that MG-A imagery is used to enhance confidence.

Motivational Specific (MS). Many researchers have identified differences in MS imagery use when comparing skill level. Greg and Hall (2006) found that high skilled golfers used more images containing specific goal achievement, whereas Shearer *et al.* (2007) suggested that lower skilled athletes used more MS imagery. Findings in this study aligned with Greg and Hall's (2006) suggestion. Specifically, only two of the four lower skilled golfers identified using MS imagery, with both cases imaging for a dual purpose. Low skilled participant 5 acknowledged:

I'd always imagine a crowd reaction to it going in the hole. I know I'd never have crowds watching me, but that's what I image, like a positive crowd response to it going in...Yeah, like I watch a lot of golf, and the pros always get big applauses when they get it in, so that's what I image just a big applause from the crowd

The dual purpose of his images reflected hearing a crowd response (MS) when imaging a successful outcome (MG-M). As previously discussed, he also identified using MG-M in conjunction with cognitive specific imagery; participant 8 (low skilled) suggested the use of MS imagery in conjunction with imagery containing strategies and routines (CG).

In contrast, three of the four high skilled golfers suggested the use of MS when in competition or practice. For example, participant 2 (high skilled) suggested:

I'd sometimes imagine myself have a final winning putt and like sinking it and then like the crowd applauding me and being like, everyone shaking my hand and picking up like a trophy or a cheque or things like that... It will make me feel like confident.

This participant felt that he derived confidence from imaging specific goal attainment. Meanwhile participant 3 suggested:

you see yourself further on, you win the competition, you win the money, you win the trophy or whatever its being successful. . . its confidence again, it's showing you're competent, like you know you're capable of doing that so why can't you just go out and do it

These images reinforced his beliefs that he can achieve his goals, which strengthened his confidence in his own capabilities. Participant 4 recalled hearing people cheer and clap when performing a successful shot - a feature identified by low skilled participant 5. He described imaging positive goal achievement (MS) in conjunction with MG-M imagery; a finding that further reinforces Martin *et al.*'s (1999) contention that imagery types are orthogonal.

Overall these findings are consistent with Cumming and Hall's (2002a; 2002b) and Greg and Hall's (2006) suggestions that skilled athletes use more specific goal achievement imagery than their lesser skilled counterparts.

Additional findings. Throughout the responses provided by participants, imagery effectiveness, imagery outcome and additional mediating factors were also discussed in conjunction with type of imagery. When asked if they believed their images were effective in serving their purpose, all participants' responses were positive. Participant 2 suggested that without it, he wouldn't 'retain as much focus'. Whilst, participant 3 responded:

100%, I think without it, you step onto the tee or into the shot almost oblivious to what you want to do and what needs to be done. It helps you, it gives you information in terms of sort of like variables like wind and that you can see it in your head. And like I said earlier, if you can see yourself hitting that shot . . . it just restores confidence, so it definitely does the job yeh

Participant 4 stated that it instilled a certain self-belief and confidence that allowed him to hit a successful shot. Interestingly however, even though high skilled participant 1 stated that he regularly uses CS and MG-M imagery whilst practicing and in competition, he also echoed his concerns over the fallibility of these types of imagery. This participant stated that he occasionally questions the effectiveness of this particular psychological skill and regularly discontinues the use of imagery completely. This could be explained by individual differences, with participant 1 stating that he is 'a bit of a hot head on the golf course' and doesn't 'trust his mind' as much as he does his own body. As previously mentioned all low skilled golfers

identified that imagery was effective in serving its purpose. For example, participant 5 suggested:

It sort of calms me down when I'm nervous about hitting a shot and like, I feel that if I didn't use it then I would be a worse player. Like, you've got so much time to yourself when you're performing, like because it's a slow game, I can just use imagery to make me feel confident about the shot I'm about to hit.

However, differences in imagery effectiveness emerged for participant 8. This low skilled golfer suggested that imagery was effective when performing successfully and ineffective when performing unsuccessfully. This could have been explained by the individual's imagery ability levels (Greg, Hall, McGowan and Hall, 2011), with participant 8 stating that he sometimes lacked concentration levels when imaging.

In relation to imagery effectiveness, a common trend which has emerged within the high skilled category was the use of positive imagery. For example, participants 3 and 4 reiterated the fact that their images would always be positive, irrespective of the circumstance. Specifically, participant 3 suggested:

Because like you've got to stay confident... that's the thing with golf, if you're stepping on to the tee with any negative thoughts in your head then you're done from the outset... so yeh everything I do, every image in my head is always successful, whether that be a putt going in, a putt lagging to 2 foot or a drive stonking through the air straight down the fairway. So yeah always successful.

In contrast, their lower skilled counterparts often reported the use of negative imagery. For example, low skilled participant 6 suggested 'I can see myself lifting my head up before I've hit the ball'. This golfer used this type of imagery whilst focussing on negative technical aspects - a finding consistent with Barr and Hall's (1992) reports that lower skilled athletes employ CS imagery with poor practice. In addition, participants 6 and 7 articulated the use of negative images on several occasions when in practice or competition. These golfers suggested that their imagery changes relative to how well they are playing; both expressing that images were negative because of previous unsuccessful performance. Participant 6 suggested that once he experiences this, 'his head is gone' and describes feeling anxious and stressed

previous to hitting the shot. Furthermore, participant 8 believed that his images could be both facilitative and debilitating towards performance. These findings could be explained by the participants' description of when and where they experience these images. For example, the low skilled golfers suggested that when playing adversely, they frequently experienced undesirable images. Meanwhile, the higher skilled golfers regularly suggested that they imaged positively even when in demanding situations. This finding supports Krohne and Hindel's (1988) suggestion that higher skilled athletes are distinguishable by their ability to cope with adversity. Further to this, due to the low skill level of these participants, it is presumed that they would have a greater possibility of encountering challenging situations than that of a high skilled golfer. This could explain why findings suggest that successfulness of the image is an important difference between higher and lower skilled golfers.

In addition, an interesting finding was that regardless of skill level, imagery differed for specific shots for many of the participants. For example, high skilled participant 3 and low skilled participant 5 both identified that the frequency of their images changed in accordance with shot importance, difficulty or shot type. Specifically, participant 5 explained, "putting is much more important to my game than driving I think, so the imagery I use would get more vivid I think". As a result, this low skilled golfer restored more attention to his putting than for his driving. This is conceivable as Nideffer (1976) suggested that various sport and skill conditions require different attentional demands. Supporting this suggestion, high skilled participant 1 and low skilled participant 7 recognised that imagery use differed in accordance with which particular club was used. Furthermore, participant 2 suggested:

I'd say that if I was imaging . . . with a 6 iron compared to say like a 2 iron or something like that I'd feel a lot more confident imaging the 6 iron and like, the images would be vivid, like, the spins of the ball would be more specific.

These findings therefore illustrate that shot type might also be a mediating factor for imagery use in golf (for example, driver, iron, wedge, chip and putt).

CHAPTER FIVE

SUMMARY AND CONCLUSION

The present study qualitatively explored imagery use in high and low ability golfers. The findings suggested that athletes used imagery for both cognitive and motivational functions (Munroe *et al.*, 1998). Generally, the study indicated that skill level is a mediating factor in imagery use by golfers. Congruent with suggestions made by Hall *et al.* (1998), findings illustrated that higher ability golfers employed imagery more regularly for motivational functions, whereas, the low ability golfers utilised imagery more commonly for cognitive functions. Specifically, three high skilled golfers identified using each motivational imagery type (MG-M, MG-A and MS) and the final high ability golfer acknowledged using MG-M imagery. Meanwhile, three low ability golfers used employed each cognitive imagery type and the remaining low skilled participant used CS imagery.

The results in the study illustrated certain differences when using MG-M imagery between high and low skilled golfers. Specifically, one of the low skilled golfers who used MG-M imagery with negative practice suggested that instead of enhancing confidence, it heightened anxiety and stress levels. This finding is intriguing and consistent with Taylor and Shaw's (2002) suggestion that golfers, regardless of ability level, should avoid negative imagery. Although differences have emerged in imagery type, the present study also illustrated differences in imagery outcome. High ability golfers consistently conveyed the use of positive imagery, with their lower skilled colleagues frequently articulating negative imagery. This is a key finding as it is not consistent with any of the previous literature. In addition, findings revealed that regardless of skill level, imagery differed for specific shots for many of the participants. Again, this is a finding that is not affiliated with aforementioned research.

The present study adds strength to the relatively sparse psychological imagery literature within golf. Previously, studies have examined differences in imagery by high and low ability athletes using quantitative methods (Arvinen-Barrow *et al.*, 2007; Cumming and Hall, 2002a). In particular, Greg and Hall (2006) explored the use of imagery by high and low ability golfers whilst employing the SIQ. However, few studies have adopted a qualitative methodology. The main strength of this study is founded within this approach. This adopted method enabled the study to gain a more

fine-grained understanding of imagery use by high and low ability golfers. As a result, similar methodologies should be employed in future studies.

However, it should be noted that the study was limited by the criteria used for participant selection. This was due to the vast separation between high and low ability groups. Therefore, participants could have been better delineated into the specific high and low ability categories. Indeed, it is not unreasonable to suggest that there would be differences in imagery use with golfers in category 1 compared to that of golfers in category 2 (CONGU, 2012). Future research should address this issue by emulating the present study with different criteria for participant selection. This study was limited further by the exclusive use of male participants within the study; thus findings cannot be attributed to female golfers.

Finally, this study has provided qualitative information which enhanced the knowledge of imagery use by high and low ability golfers. However, employing a different method of interviewing could have generated higher quality responses. For example, video reconstruction and recall could have been utilised to ensure a more vivid recollection of the situations the golfer was experiencing (Newby, 2010). Further to this, participants could have been interviewed immediately after competition and practice to prompt an increased quality response and further information on the topic area.

Upon receipt of the findings, a number of practical implications have emerged. Coaches and sport psychologists should be cognizant of the benefits of imagery use in golfers at all ability levels. Interventions encouraging the use of both CS and MG-M imagery should be designed for all golfers regardless of skill level. Meanwhile, the continued development of CG imagery interventions for low skilled golfers and MG-A and MS imagery interventions for high ability golfers is required. Despite Hall *et al.*'s (1998) suggestions, coaches should also endorse the use of MG-M imagery training in low ability golfers whilst continuing to do so for high skilled golfers. Likewise, the use of CS imagery training for high ability golfers should be promoted by coaches. In general, this study adds support to the sustained promotion and utilisation of imagery in golf.

From a theoretical perspective, contrary to the suggestion made by Greg and Hall (2006), findings in this study indicate that in golf, handicap might not be an objective

measure of skill level. This is because regardless of ability, participants identified fluctuations in their imagery use in accordance with importance of shot, perceived ability to perform a skill and type of shot. Consequently, future research should endeavour to find a categorising method in which specifically separates two groups into high and low ability golfers. For example; golfers can be separated exclusively by putting ability or driving ability. Further to this, findings suggested that there are differences in imagery use between specific golf skills (such as putting, driving, bunker shots, iron shots). As a result, future research should attempt to further explain this finding. Results could be advantageous for golf coaches developing imagery training programmes.

Although findings highlight the ability level and imagery use relationship, the need for empirical research exploring imagery within golf is still warranted. Further empirical investigation may elicit a greater understanding in the differences between high and low ability golfers. Such research should, wherever possible be conducted using similar qualitative designs. In addition, future research should duplicate this present study with the inclusion of females. Thus, a further research question could be to investigate whether differences in imagery use are evident between high skilled male golfers and high skilled female golfers. Future studies may also wish to examine the use of imagery in specific golf shots. Findings could contribute to preliminary guidelines for imagery use in golf.

To conclude, the primary purpose of this study was to qualitatively explore imagery use by high and low skilled golfers. Findings highlighted imagery use within high and low ability golfers. The high and low ability golfers all identified using CS and MG-M imagery to the same level. CG imagery was predominantly employed by low ability golfers, with MG-A and MS imagery utilised principally by the high skilled golfers. Findings suggested differences in imagery outcome and likewise demonstrated that, regardless of ability level, there were differences in imagery use for specific shots. The study has illustrated various important practical and theoretical implications. However, further insight into the use of imagery by high and low ability golfer is required. Therefore research should continue to employ a qualitative approach when investigating imagery use in the sport of golf.

REFERENCES

- Arvinen-Barrow, M., Weigand, D., Thomas, S., Hemmings, B., and Walley, M. (2007). Elite and Novice Athletes' Imagery Use in Open and Closed Sports. *Journal of Applied Sport Psychology*, **19**(1), 93-104.
- Barr, K., and Hall, C. (1992). The use of imagery by rowers. *International Journal of Sport Psychology*, **23**, 243–261.
- Beauchamp, M., Bray, S., and Albinson, J. (2002). Pre-competition imagery, self-efficacy and performance in collegiate golfers. *Journal of Sports Sciences*, **20**, 697–705.
- Bell, R., Skinner, C., and Fisher, L. (2009). Decreasing putting yips in accomplished golfers via solution-focuses guided imagery: A single-subject research design. *Journal of Applied Sport Psychology*, **21**, 1-14.
- Bell, R., Skinner, C., and Halbrook, M. (2011). Solution-Focused Guided Imagery as an Intervention for Golfers with the Yips. *Journal of Imagery Research in Sport and Physical Activity*, **6**(1).
- Callow, N., and Hardy, L. (2001). Types of imagery associated with sport confidence in netball players of varying skill levels. *Journal of Applied Sport Psychology*, **13**, 1–17.
- Callow, N., and Hardy, L. (2005). A critical analysis of applied imagery research. In D. Hackfort, J. Duda and R. Lidor (Eds.), *The handbook of research in applied sport and exercise psychology: International perspectives* (pp. 21-42).
- Callow, N., Hardy, L., and Hall, C. (2001). The effects of a motivational general-mastery imagery intervention on the sport confidence of high-level badminton players. *Research Quarterly for Exercise and Sport*, **72**, 389–400.
- Coelho, R., Keller, B., Kuczynski, K., Ribeiro Jr, E., De Araujo Montoro Lima, M., Greboggy, D., and Stefanello, J. (2012). Use of multimodal imagery with precompetitive anxiety and stress of elite tennis players 1. *Perceptual and Motor Skills*, **114**(2), 41.

- CONGU, (2012), *Unified Handicapping System*, Council of national golf unions limited.
- Cote, J., Salmela, J., Baria, A., and Russell, S. (1993). Organizing and interpreting unstructured qualitative data. *The Sport Psychologist*, **7**, 127–137.
- Cumming, J., and Hall, C. (2002a). Athletes' use of imagery in the off-season. *The Sport Psychologist*, **16**, 160–172.
- Cumming, J., and Hall, C. (2002b). Deliberate imagery practice: the development of imagery skills in competitive athletes. *Journal of Sports Sciences*, **20**, 137–145.
- Cumming, J., Olphin, T., and Law, M. (2007). Self-reported psychological states and physiological responses to different types of motivational general imagery. *Journal of Sport and Exercise Psychology*, **29**, 629-644.
- Cumming, J., and Ramsay, R. (2009). Imagery Intervention in Sport. In: Mellalieu, D & Hanton, S. *Advances in Applied Sport Psychology: A Review*. Oxon: Routledge. 5-36.
- Driediger, M., Hall, C., and Callow, N. (2006). Imagery use by injured athletes: a qualitative analysis. *Journal of sports sciences*, **24**(3), 261-272.
- Evans, L., Hare, R., and Mullen, R. (2006). Imagery use during rehabilitation from injury. *Journal of Imagery Research in Sport and Physical Activity*, **1**(1), 1-19.
- Evans, L., Jones, L., and Mullen, R. (2004). An imagery intervention during the competitive season with an elite rugby union player. *The Sport Psychologist*, **18**, 252–271.
- Fischer, R. (2005). Characteristics of Imagery use: A comparison among skill levels. Manuscript in preparation.
- Gammage, K., Hall, C., and Rodgers, W. (2000). More about exercise imagery. *Sport Psychologist*, **14**, 348–359.
- Gould, D., Eklund, R., and Jackson, S. (1993). Coping strategies used by US Olympic wrestlers. *Research quarterly for Exercise and Sport*, **64**(1), 83.

- Gregg, M., and Hall, C. (2006). The Relationship of Skill Level and Age to the Use of Imagery by Golfers. *Journal of Applied Sport Psychology*, **18**, 363-375.
- Gregg, M., Hall, C., and Hanton, S. (2007). Perceived effectiveness of heptathletes' mental imagery. *Journal of Sport Behaviour*, **30**.
- Gregg, M., Hall, C., McGowan, E., and Hall, N. (2011). The relationship between imagery ability and imagery use among athletes. *Journal of Applied Sport Psychology*, **23**, 129-141.
- Hall, C. (1998). Measuring imagery abilities and imagery use. In J.L. Duda (Ed.), *Advances in sport and exercise psychology measurement* (pp. 23-29). Morgantown, WV: Fitness Information Technologies.
- Hall, C., Buckolz, E., and Fishburne, G. (1992). Imagery and the acquisition of motor skills. *Canadian Journal of Sports Science*, **17**, 19-27.
- Hall, C., Mack, D., Paivio, A., and Hausenblas, H. (1998). Imagery use by athletes: Development of the Sport Imagery Questionnaire. *International Journal of Sport Psychology*, **29**, 73–89.
- Hall, C., Rodgers, W., and Barr, K. (1990). The use of imagery by athletes in selected sports. *The Sport Psychologist*, **4**, 1-10.
- Hardy, L. (1997). The Coleman Roberts Griffith address: Three myths about applied consultancy work. *Journal of Applied Sport Psychology*, **9**, 277-294.
- Hardy, L., and Callow, N. (1999). Efficacy of external and internal visual imagery perspectives for the enhancement of performance on tasks in which form is important. *Journal of Sport and Exercise Psychology*, **21**, 95-112.
- Hare, R., Evans, L., and Callow, N. (2008). Imagery use during rehabilitation during injury: A case study on an elite athlete. *The Sport Psychologist*, **22**, 405-422.
- Highlen, P., and Bennett, B. (1979). Psychological characteristics of successful and non-successful elite wrestlers: An exploratory study. *Journal of Sport Psychology*, **1**, 123-137.

- Jacobson, E. (1930). Electrical measurement of neuromuscular states during mental activities. *American Journal of Physiology*, **94**, 24-34.
- Krohne, H., and Hindel, C. (1988). Trait anxiety, state anxiety, and coping behavior as predictors of athletic performance. *Anxiety Research*, **1**(3), 225-234.
- Lang, P. (1977). Imagery in therapy: an information-processing analysis of fear. *Behaviour Therapy*, **8**, 862–886.
- Lang, P. (1979). A bio-informational theory of emotional imagery. *Psychophysiology*, **16**, 495–512.
- Lincoln, Y., and Guba, E. (1985). *Naturalistic inquiry* (Vol. 75). Sage Publications, Incorporated.
- Mahoney, M., and Avenier, M. (1977). Psychology of the elite athlete: An exploratory study. *Cognitive Therapy and Research*, **2**, 135-141.
- Martin, J. (2011). Qualitative research in sport and exercise psychology: observations of a non-qualitative researcher. *Qualitative Research in Sport, Exercise and Health*, **3**(3), 335–348.
- Martin, K., and Hall, C. (1995). Using mental imagery to enhance intrinsic motivation. *Journal of Sport and Exercise Psychology*, **17**, 54-69.
- Martin, K., Moritz, S. and Hall, C. (1999). Imagery use in sport: a literature review and applied model. *The Sport Psychologist*, **13**, 245–268.
- Maykut, P., and Morehouse, R. (1994). *Beginning qualitative research a philosophical and practical guide*. London: Routledge. pp.79-112.
- Meacci, W., and Price, E. (1985). Acquisition and retention of golf putting skill through the relaxation, visualization and body rehearsal intervention. *Research Quarterly for Exercise and Sport*, **56**, 176-179.
- Meyers, A., Cooke, C., Cullen, J., and Liles, L. (1979). Psychological aspects of athletic competitors: A replication across sports. *Cognitive Therapy and Research*, **3**, 361-366.

- Miles, M., and Huberman, M. (2002). *The qualitative researcher's companion*. Sage Publications, Incorporated.
- Munroe, K., Giacobbi, P., Hall, C., and Weinberg, R. (2000). The four Ws of imagery use: Where, when, why and what. *Sport Psychologist*, **14**, 119-137.
- Munroe, K., Hall, C., Simms, S., and Weinberg, R. (1998). The influence of type of sport and time of season on athletes' use of imagery. *The Sport Psychologist*, **12**, 440–449.
- Munroe-Chandler, K., and Morris, T. (2011). Imagery. In Morris, T., and Terry, P. (Eds.), *The new sport and exercise psychology companion* (pp.275-308). Morgantown, WV: Fitness Information Technology
- Newby, P. (2010). *Research Methods for Education*. England: Pearson Education Limited.
- Nicholls, A., Polman, R., and Holt, N. (2005). The effects of individualized imagery interventions on golf performance and flow states. *Athletic Insight: the Online Journal of Sport Psychology*, **7**(1), 4.
- Nideffer, R. (1976). Test of attentional and interpersonal style. *Journal of Personality and Social Psychology*, **34**, 394-404.
- Nordin, S., and Cumming, J. (2005). More than meets the eye: Investigating imagery type, direction, and outcome. *The Sport Psychologist*, **19**, 1-17.
- Orlick, T., and Partington, J. (1988). Mental links to excellence. *The Sport Psychologist*, **2**, 105–130.
- Paivio, A. (1985). Cognitive and motivational functions of imagery in human performance. *Canadian Journal of Applied Sport Science*, **10**, 22–28.
- Patton, M. (1987). *How to use qualitative methods in evaluation* (Vol. 4). Sage Publications, Incorporated.
- Patton, M. (2002). *How to use qualitative methods in evaluation*. Sage Publications, Incorporated.

- Ramsay, R., Cumming, J., and Edwards, M. (2008). Exploring a modified conceptualization of imagery direction and golf putting performance. *International Journal of Sport & Exercise Psychology*, **6**(2), 207.
- Richardson, A. (1967). *Mental Imagery*. New York: Springer.
- Sackett, R. (1934). The influences of symbolic rehearsal upon the retention of a move habit. *Journal of Applied Sport Psychology*, **6**, 116-133.
- Salmon, J., Hall, C., and Haslam, I. (1994). The use of imagery by soccer players. *Journal of Applied Sport Psychology*, **6**, 116–133.
- Shearer, D., Thomson, R., Mellalieu, S., and Shearer, C. (2007). The relationship between imagery type and collective efficacy in elite and non-elite athletes. *Journal of Sports Science and Medicine*, **6**, 180–187.
- Short, S., Bruggeman, J., Engel, S., Marback, T., Wang, L., Willadsen, A., and Short, M. (2002). The effect of imagery function and imagery direction on self-efficacy and performance on a golf-putting task. *The Sport Psychologist*, **16**, 48–67.
- Silverman, D. (2011). *Interpreting qualitative data*. Sage Publications Limited.
- Smith, D., and Holmes, P. (2004). The effect of imagery modality on golf putting performance. *Journal of Sport and Exercise Psychology*, **26**, 385–395.
- Taylor, J., and Shaw, D. (2002). The effects of outcome imagery on golf-putting performance. *Journal of Sports Sciences*, **20**(8), 607-613.
- Tesch, R. (1990). *Qualitative research analysis types and software tools*. New York: Falmer Press.
- Thomas, J., Nelson, J., Silverman, S., and Silverman, S. J. (2010). *Research methods in physical activity*. Human Kinetics Publishers.
- Vealey, R. (1994). Current status and prominent issues in sport psychology interventions. *Medicine and Science in Sport and Exercise*, **26**, 495-502.
- Vealey, R., and Greenleaf, C. (1998). Seeing is believing: Understanding and using imagery in sport. In J. M. Williams (Ed.), *Applied sport psychology: Personal*

growth to peak performance (3rd ed., pp. 237–269). Mountain View, CA: Mayfield.

Weinberg, R. (2008). Does imagery work? Effects on performance and mental skills. *Journal of Imagery Research in Sport and Physical Activity*, 3(1), 1-21.

Weinberg, R., and Gould, D. (2011). *Foundations of Sport and Exercise Psychology*. Champaign: Human Kinetics. 293-318.

White, A., and Hardy, L. (1998). An in-depth analysis of the uses of imagery by high level slalom canoeists and artistic gymnasts. *The Sport Psychologist*, **12**, 387–403.

APPENDICES

Appendix A – Consent form

CARDIFF METROPOLITAN

INFORMED CONSENT FORM

CSS Reference No:

Title of Project: The use of imagery by high and low ability golfers: A qualitative study.

Name of Researcher: Toby Gallagher

Participant to complete this section: Please initial each box.

- 1. I confirm that I have read and understand the information sheet datedfor this study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
- 2. I understand that my participation is voluntary and that it is possible to stop taking part at any time, without giving a reason.
- 3. I also understand that if this happens, our relationships with the Cardiff Metropolitan University, or our legal rights will not be affected
- 4. I understand that information from the study may be used for reporting purposes, but I will not be identified.
- 5. I agree to take part in this study on the use of imagery by high and low ability golfers: A qualitative study.

Name of Participant

Signature of Participant

Date

Name of person taking consent

Signature of person taking consent

Date*

When completed, one copy for participant and one copy for researcher's files

Appendix B – Participant Information Sheet

Participant Information Sheet:

Project Title: The use of imagery by high and low ability golfers: A qualitative study.

This document provides a run through of:

- 1) the background and aim of the research,
- 2) my role as the researcher,
- 3) your role as a participant,
- 4) benefits of taking part,
- 5) how data will be collected, and
- 6) how the data / research will be used.

The purpose of this document is to assist you in making an *informed* decision about whether you wish to be included in the project, and to promote transparency in the research process.

1) Background and aims of the research:

Past studies have showed varying results when researching the differences in imagery use between higher skilled athletes compared with lower level performers. Furthermore, golf is a sport in which literature suggests imagery is utilized frequently by top professionals.

I wish to gain a better understanding of imagery use with golfers and how it can differ between high ability performers and low ability athletes.

2) My role as the researcher:

The project involves me (Toby Gallagher) the researcher, interviewing you on your imagery use in training, practice and competition in golf.

3) Your role as a participant:

Your role is to attend the interview, give honest answers. The interview will include questions about types of imagery, imagery use in practice, competition. Why you would use imagery as a technique. The answering of every question is not compulsory and you can leave the interview at any point.

4) Benefits of taking part:

The information we obtain from this study will allow better insight into the types of imagery that higher and lower ability golfers utilize. From this information provided our aim is to gain a greater understanding into the different types of imagery utilized by the different level of ability golfers. I will be happy to share this information to any of the participants of this study. On request, we can also provide you with a full transcript of the interview conducted.

5) How data will be collected:

As alluded to above, data will be collected solely from the interview process.

6) How the data / research will be used:

In agreeing to become a voluntary participant, you will be allowing me to use your responses in the interview to compare and analysis the imagery use by high and lower skilled golfers. Your personal data will be anonymous, and kept confidential.

Your rights

Your right as a voluntary participant is that you are free to enter or withdraw from the study at any time. This simply means that you are in full control of the part you play in informing the research, and what anonymous information is used in its final reporting.

Protection to privacy

Concerted efforts will be made to hide your identity in any written transcripts, notes, and associated documentation that inform the research and its findings. Furthermore, any personal information about you will remain confidential according to the guidelines of the Data Protection Act (1998).

Contact

If you require any further details, or have any outstanding queries, feel free to contact me on the details printed below.

Toby Gallagher

Cardiff School of Sport
Cardiff Metropolitan University
CF236XD, United Kingdom
Email: st10001382@outlook.uwic.ac.uk

Appendix C - Interview Guide

Section 1

Introduction of interviewer

Hi, thanks for giving me permission to interview you today. My name is Toby Gallagher. I am a sport and exercise science student at Uwic University. I'm currently doing my dissertation in sport psychology and the psychological intervention known as imagery.

Declaration of individual's rights in the study

At any stage of this interview, if you do not wish to answer any questions or wish to stop the interview then you are free to do so. Also, if you're confused at any stage during the interview, feel free to ask myself questions in which I will hope to answer to the best of my ability.

Purpose of interview and study

The purpose of this present study is to examine the use of imagery by high and low ability golfers. And the reason for this interview is to gain an in depth knowledge of imagery use by golfers.

Introductory Questions

How are you?

How did you get here today?

Section 2

Background Information

For the purpose of the recording can you please state your name and age.

To begin this interview, I will ask a few questions on your golfing background.

- *Firstly, what is your handicap/playing level?*
- *Can you describe to me how you got involved in the sport of golf?*
- *Do you play at a competitive level?*
- *What would you say is your greatest achievement playing golf?*
- *Have you ever received sport psychology support in golf?*

Introduction of Imagery – Definition:

Cumming and Ramsay (2009) described "imagery is an experience that mimics real experience, and involves using a combination of different sensory modalities in the absence of actual perception" (p.5).

“It differs from dreams in that we are awake and conscious when we form the image”
(White & Hardy, 1998, p. 389)

Section 3

Imagery when practising – Range, Chipping green and Practice green

- During practise what occasions can you recall using imagery?
- What sort of images were you forming when on the range hitting a long shot?
- What images were you forming when on the chipping green for a chip?
- What images were you forming when on the putting green for a putt?
 - Probes: What you were wearing
 - Feel the ground under your feet/club in your hands/ ball-turf contact
 - The sound of the ball leaving the clubface/ball going in the hole
 - Trajectory of the ball
 - How the ball reacts when landing
- How did these images make you feel?
 - Probes: Emotionally
 - Physically/body language
 - Approaching the next shot
- Why do you use imagery while on the range? What is the purpose of you using it?
 - Probes: Technical
 - Skill Acquisition
 - Tactical (course strategy)
- Describe to me the successfulness of the images?

Section 4

Imagery whilst in competition/competitive matches

- Would you say you use more imagery during practise or during competition?
 - Probes: Demands of Practice vs. Competition
- When would you use imagery when on the course?
 - Probes: Consistent over the round/tournament
 - State of the match/how you are performing
- What sort of images are you forming? Can you describe the images to me?
 - Probes: Remain the same or change
- How did these images make you feel?
- Why do you use imagery while on the course? What is the purpose of you using it?
- Describe to me the successfulness of the images?

Section 5

Imagery effectiveness

- Do you think that your imagery was effective in serving its purpose?
Probes: Barriers to effective imagery
- Did you find it easier to form images during training or during competition?
Probes: Why do you think that is?

Section 6

Anything else?

Before we end this interview, is there anything that you feel you should add or anything important about imagery that you would like to discuss?

Thank you very much for your time and help.

Appendix D – Example Interview Transcript

Participant 3 Interview

I - Welcome to my interview today, can you just give me your name and your handicap please?

P - Yeh its “ “ my handicap is 5

I - Ok basically my name is Toby Gallagher, we have met before.... Umm I'm a sport and exercise scientist student in UWIC. And basically the reason for this interview today is just for my dissertation in psychology and the psychological intervention known as imagery. Basically, just to give you your rights in the study. At any stage of this interview, if you do not wish to answer any questions or wish to stop the interview then you are free to do so. Also, if you're confused at any stage during the interview, feel free to ask myself questions in which I will hope to answer to the best of my ability. The purpose of you being here, we've identified you as a high skilled golfer who uses imagery and the reason for this interview is to gain a more in depth knowledge of this particular skill. So for the first section we'll just go onto some background information just to ease you into the interview. Urr so firstly like can you describe to me how you got involved in the sport of golf?

P - Basically, I've got an older brother, so obviously when I got to an age where I had a concept of the sport and stuff and I knew he was playing. It kind of just flowed naturally, my mum and dad were keen for me to get involved... it was something like umm in the school holidays it was a safe place for me and my brother to go, spend all day and have fun, we weren't in the house being nag..... it was basically sort of mainly through school holidays and stuff, it was a good way to keep us occupied and it was something that I enjoyed soo

I - What sort of age were you?

P - I started playing when I was in year 4 so I think would have been 8 or 9. So really young

I - Ok do you play at a competitive level much?

P - Yeh umm play mostly county standard, played a few national competitions kind of like representing the county and stuff. Obviously to get to county you play at club level and obviously get your name out there and stuff. So yeh, it's a lot of competition either within club or representing the club or even from that representing the county so quite abit yeh

I - So would you say your greatest achievement in golf is probably representing the county?

P - Urr yeah definitely in a competition called the V trophy, you go to represent your area, so sort of south east.. you go there represent the southeast of your country so it was a good experience

I - Ok have you ever received like coaching then?

P - Yeh, the kind of block where you go through county is that you start playing for your club and as I said you get noticed and get invited to county training which is sort of twice a month sort of thing. You go and go get assigned a pro at a club around Hampshire, where you go and basically get free tuition, you just work on stuff that they might see become a weakness and stuff like that because obviously you're at a really young age... but yeh its good, its good to get an insight because you wouldn't get it otherwise, because you're doing well but there's always stuff you can improve on.

I - So in these coaching session would you mainly work on technique and the skill side of it?

P - Yeah it would just be tiny tweakes sort of stuff, so it could be grip

I - Yeh

P - It could be, they use a lot of video analysis so it could be just a plane in the swing, so like coming in too steep an angle stuff like that and they would be able to refine something in your grip or in your posture or something like that and tweak it a little bit

I - So in these coaching sessions, have you ever received like psychological skills?

P - No not at all, not at first anyway... basically from county skills training you get invited to umm a thing called the school of excellence which is where the county players and kind of development players would then go and that would be once a month, it's like a whole day thing... umm and that basically involved everything, so what I said earlier video analysis, it involved that, psychology, physio, strength and conditioning so it was pretty serious stuff.. there was a lot laid on for you so it was pretty good.

I - Ok so what we'll do is just give you a little introduction into imagery and a few definitions. Just so we're on the same wave length... Basically, it's been described an experience that mimics real experience, and involves using a combination of different sensory modalities in the absence of actual perception and it differs from dreams in that we are awake and conscious when we form the image

P - Ok

I - What we'll do now is go to your imagery whilst say you're on the range and practising on the greens. We'll start with the range, umm we'll put you in the

scenario, whilst you're on the range you will do a little warm up and stuff... you'll go from your wedges and build your way up?

P - Yeh definitely yeh

I - So we'll just go through your wedges first?

P - Yeh

I - So just go through... you've got a ball in front of you... just go through your physical and imagery routine?

P - Umm yeah obviously I've got a natural pre sort of routine so even before starting if we're talking about physical it would just be loosen up, nothing vigorous just swinging the arms, almost like to get yourself mentally prepared because if you feel you don't do it, then you feel you're not prepared... I don't think it does a lot to be honest.

I - Yeh

P - But umm yeh then obviously you start thinking about then kind of what you want to be working on so whether it's just like a, ticking over session where you just feel you need to hit a few balls or whether there's something underlying which you feel you need to work on... I think it depends on that... umm if it was just ticking over, it'd just literally be imaging my short ranged shots hitting the centre of the green really because im quite a safe sort of player

I - Yeh

P - Depending on sort of situation on the course if you need to score highly or lowly or whatever, you'd just kind of image hitting the shot well, hitting the dead centre of the green and as I said if there is an underlying problem where sort of you feel your fatting it a bit, you're taking too much of a divet.. it might just be getting that clean contact and getting that sharp contact on the ball and hitting it in the centre of the green... It would be just simple sort of stuff like that really

I - Ok, so when you imaging this sharp contact, can you hear the connection?

P - Yeah its very really because its... with golf it's the skills that you do all the time, everything is the same so.. its something you can relate to quite easy so its not hard to sort of feel very real

I - Yeh

P - You can really see... you can either like... I mean... its almost personal preference like sometimes you have days where you see yourself from within like a birds eye point of view, so you see yourself or you can almost step away.. depending on what you want to look at really

I - What would you say you use more, would you say from your own angle?

P - Yeah from my own angle definitely, like within my own body... sort of like I said earlier its getting that mental preparation

I - So when you're in the image then can you feel yourself doing it?

P - Yeh I can feel my arms swinging, my hips moving.. and like you said earlier like the contact phase definitely

I - Ok, so after the contact phase, tell me what you're seeing then?

P - Yeh obviously its natural, you have your sort of ending position within your own swing so naturally you strike the ball and you feel yourself in your own position and you see from a natural point of view where the balls going, so rather than a coaches point of view behind it, you actually see yourself doing it.. and you're lifting you head up as you would in a real scenario and then you can see the flight of the ball and where it's off to

I - Ok so what would be then the outcome of this imagery, so you've seen the flight of the ball then what's going on?

P - It's very positive, like especially in practice you don't try and let any negative shots into your head like you don't really need that sort of stuff... it's always with wedges very much sort of centre of the green stuff, I can see myself striking the ball well, good high flight and then hitting the green softly and landing in the centre of the green really yeh

I - So when you're on the range then are you imaging the sort that youre trying to hit on the course then, so you're seeing a hole there aswel?

P - Yeah definitely... Ummm like I said earlier it all depends on what you're going into so whether it's a standard competition at your club, so obviously you know club very well so you might be specific holes and positions that you find yourself quite regularly that's quite easy to image because you've done it so much

I - Yeh

P - Or obviously like if you're going into a competition where you're not so familiar, so for example it might be a lynx course, so you might adapt what you're looking at in terms of you know there is going to be wind, and it's going to be different stuff ... it's an even bounce so you might be looking to chip and run it and roll it onto the green rather than the high flight and soft landing

I - Ok so when you're in these images, you can see the ball landing aswel?

P - Yeh definitely

I - So then when do you stop the image then?

P - Umm I see it when, it sounds stupid but almost like a crowd reaction when the ball stops, so you imagine yourself hitting a good shot and you imagine yourself sort of receiving an applause or even just recognition off your playing partner and then that's it you shut off and almost like as if in a real round you'd be walking to the next shot

I - Alright, would you say you use imagery then over the range? Over the like particular shots you're using?

P - Throughout different shots or from clubs?

I - Clubs, shots

P - Yeh like I said its very much the same... its all positive no matter what club I'm hitting.. I know depending on that club what trajectory im looking for as in for a standard sort of shot with that club. An example would be, if im looking at sort of 4 or 3 iron then you're looking at lower trajectory anyway, so obviously naturally the image is going to be different.... So the image is always specific to which club and which shot your going to use otherwise it feels kind of redundant doing it because you're not going to image a nice high wedge shot if you're about to hit a 3 iron.

I - Yeh ok so we'll put you into a situation now then when you've just hit you're wedge shots, say youre just going through like a hitting a few balls process and you're feeling pretty positive, you're hitting good shots, you're hitting clean connections, how does that make you feel about your imagery?

P - Yeha definitely, it just kind of reinforces what you already knew really, because its something that you do naturally anyway so you do it for a reason, you wouldn't do it otherwise.... So naturally it gives you confidence going into the shot if you can see yourself and feel yourself hitting that shot and you see it become successful then naturally its going to make you more upbeat walking into your shot, getting ready to hit it for real

I - Yeh

P - It gives you more confidence really, a lot more confidence

I - Ok so then we'll put you in another scenario then, say you've got your 7 iron in your hand

P - Yeh

I - Umm, would you say you work on, especially when you're imaging, particular skills within the swing or?

P - Urrr yeh, Id say with a 7iron, its something that I can slightly fade.. only slightly sort of coming in from the left soo it might just be a case of imaging you striking it... it's not as if I hit a 7iron bad but... it might just be a case of with your imagery, you

might just view that shot becoming a straight one.. so that might be a slight difference depending on the club because naturally you hit clubs differently and sometimes the swings is not always the same... so I might image to specify a slight change to see what I prefer and obviously you see how that comes out in your real shots so I think that would be it yeh

I - So you say you're in that situation then, you're trying to hit a straight 7 iron, you've imaged a straight 7 iron and you've imaged it perfectly going successfully, but you're actual shot has been a negative shot, its gone off to the right again, its been abit of a draw... a fade sorry. Tell me how you're thinking then?

P - Umm I mean it doesn't necessarily give me a negative opinion of the imagery because obviously that's just in place to give you confidence and that so I'm not going to beat myself up about it because its naturally going to be a problem anyway so

I - Would you say your imagery routine changes because of the negative shot?

P - Umm id say, I might image it more so I might see the shot more times

I - Ok

P - Before I then try and hit it so im really trying to reinforce it rather than sort of just scanning over it and feel it doing it once and like ok its straight, but if you're really fading it, you might sort of step back and really try and image and think that's what im going to do...

I - Maybe more concentration?

P - Yeh more concentration and maybe feel it a little bit more, just try to make that transition a little easier from the imagery to the actual shot

I - Oh right ok, so would you say then your imagery would change through your 7iron shots to your wedges shots?

P - Umm yeh definitely... the only reason id say for that is because with your wedges its something that you use sooo much in the round, that your body and your mind almost is so used to imaging that shot and playing that shot... that's its easier to scan over once, you know what you're doing... it goes well and to be honest its one of the easiest clubs to hit

I - Ok

P - So the chances of you hitting a bad shot is less as you go up, so yeah with the 7iron I'd say it's something like that you're not going to use it every hole on the round, whereas you would with your wedge so it is different... like I said, you might try and image sort of a couple more times before you go into that, so it would definitely change depending on the club I think.

I - So would you say then in urrr if you consider the difficulty of the shot, is that when you'd say your imagery changes the most?

P - Yeh, naturally... what do you mean whether I'm looking to hit a low?....

I - Or like, so you've just said you're really comfortable with your wedges, you can sort of just image once.

P - That's enough

I - Whereas if you go higher up, because you're not hitting that shot as much as the wedges, is that when you image a little bit more?

P - Yeh definitely, because it as I said earlier it's the reinforcement sort of thing, it boosts your self-confidence a little bit more rather than just stepping up and dealing with it from there

I - Yeh

P - You might just take a step back and think, ok ... you really try and image that shot, so for a 3 iron, a nice clean strike, a smooth swing, hitting it nice and low into the wind, so yeh would definitely depend on the club

I - Ohh right sooo what we'll do now is go into the situation where you're with your 3 iron.. and just go through your imagery routine now, as if we're on the range now... just try and give me as much depth and detail as you can?

P - Yeah definitely again, obviously what I try and do is, my imagery is almost within my practice swings

I - Yeh ok

P - My pre shot routine is that I sort of step away from the ball, I've got a frontal view of my ball and the hole, so im swinging... the swing is irrelevant really, it's just something that you feel is loosening yourself up, and while your swinging you can see yourself sort of hitting that shot so its very much specific then to what shot you're going to hit and umm like I said earlier because its quite a complex shot with the 3 iron, you're looking at sort of imaging hitting that shot 3 or 4 maybe 5 times.. really reinforcing that confidence you can hit that shot exactly how you want it to... it gives you confidence to step into it and you hit it

I - Ok so when you're in the image then are you stood over the ball and you can see yourself?

P - I think that's where I think it might change, like I said earlier with the wedges, it's something that you're hitting all the time so it's easier to imagine yourself in it... maybe sometimes with the more complex shots, like you said earlier if you image within yourself and it doesn't quite go to plan, you almost feel as if you have to step

away yeh, so almost like a coaches point of view.... So you might then step behind you and see yourself playing that shot, because then you've got that view behind... especially if you're looking at the trajectory of the shot

I - Yeh

P - It's easier to sort of see it from an angle from behind the players

I - Almost like a camera behind you?

P - Yeh as in on tv

I - So then can you see specifics within that shot or?

P - In terms of swing or?

I - Just in terms of anything

P - Yeh definitely, like ball flight is the biggest one I think, especially with the 3 iron or something like that... I mean you'd choose that club purely because you're looking at a certain trajectory so like I said earlier there is no point in stepping behind it and seeing you duff a 3 iron 50 yards in the air, because you want to see yourself driving it into the wind.. so in terms of swing, a nice sort of steep swing into the ball, nice solid grip, everything that you sort of need in the shot... like what I didn't mention then either is what you'd probably do after stepping away and seeing it from a camera point of view... before going into the shot I would then step in so my image would then be myself playing the shot within myself before going into it.

I - So how many images then are you forming when its like camera view?

P - Id say 3 from the camera view like really enforcing that, and then thinking in my head, sort of my mind is going ' ok that's what I need to do '... in my head then im stepping into it as I would playing it, its gone well again.... I see the ball flight from my point of view and then I feel im ready to hit it

I - So with the 3 iron then, cus obviously you said you're hitting it to get a low trajectory..

P - Yeh

I - So are you taking in other aspects into consideration, like I don't know the type of hole you're playing on, or the wind maybe?

P - Yeh definitely and obviously it all depends on what type of shot you want to hit, because you're not always going to have a straight fairway to hit too... like an example might be, you might have a dog leg to the left

I - Yeh

P - With a fairway bunker to the right, so you're looking at aiming towards that bunker and hitting a low draw... so obviously naturally, like I said earlier you step back and look at the trajectory, you're seeing that driven shot starting out and its drawing to the left and always resulting in hitting the middle of the fairway

I - So can you see the ball land then?

P - Yeah yeah, same as earlier, always see, go through that process where you sort of see the ball land... maybe that's more when you step into yourself

I - Yeh

P - Like when I said you step out, that's mainly for contact purposes so as soon as you've seen that contact, you know where it's going to land so you're happy to proceed, so when you step in to yourself, then you want to see it land exactly where you want it too and you feel you're ready to move on

I - Is that when you see it landing from you're point of view again?

P - Exactly, it's not just you're seeing it as if you're playing with someone... its you, you've hit that shot, you can do it and you step into it, you've got confidence playing it then

I - So is that how it makes you feel then?

P - Yeh definitely, that's my main use for it like rather than stepping into it and then if you step into it and thoughts coming into your head then, you're distracted from your technique... exactly what you need to do, and if you get sort of your thought process out the way in your pre shot routine when you're imaging it means you can hit the shot care free... you know what's going to happen and you feel more confident for it

I - So then after you've imaged then, you're out of the image, how are you feeling towards that shot?

P - If I've just hit it or I'm about to hit it?

I - Like you've just hit it in your imagery and then you've come out of the imagery and you're just stepping into the shot, tell me your feelings and emotions now?

P - Yeh almost like an excitement because I've been through that process in my head, I've done it tonnes of times of the practice range before... I've done it in my head, I know I can do it, there's no reason to be fearful of what might go wrong because it's not going to go wrong so it's just sort of immense confidence and sort of looking forward to hitting the ball

I - Yeh ok, umm what we'll do is go onto driving, would you say that's pretty similar or?

P - Yeh, urrr, almost actually almost its similar to wedges, like for me especially my driver it's something that I'm really confident with... so umm it wouldn't be something I'd have to image myself doing loads ... so that might be a case of seeing that from my own point of view... I hit the driver on most holes, and I feel that I hit it well, so I don't feel the need to step back and think about what ive got to do technically, the only time I might do that is like I said earlier, like variable like the wind or the type of hole... if I feel ive got to hit a different shot to what my normal shot would be, like because literally id say my natural drive shot would be a big high draw.

I - Yeh

P - So if It came to a hole, where id have to adjust my swing to a big high fade, then that's where you step off, image, see that trajectory and then you'd step in and again it's a confidence sort of thing

I - So again would you, because you're more competent at playing a drive, would you say you're more confident in the image aswel?

P - Yeah as I said earlier, it's a case of where you feel that you play that shot a lot, so it's easy to relate to those feelings.... your body is used to playing that shot, swinging hard, swinging fast, so it's easy to sort of relate the image to what's real as opposed to a sort of 3 iron which you don't use that much.

I - So this is all good, what we'll do now is just go onto the putting green, so again we'll just put you in a situation where you've got a 30 foot putt, it's a pretty tricky putt, just go through your imagery routine? Try and give me as much depth and detail as you can.

P - Urr I'd definitely... what I would do is... it would be practical, so I'd go through the process of reading the green first. Coming up with the shot I want, so rather than just stepping up to the ball and hitting it... you come up with a game plan almost, and you kind of reinforce that game plan within your head. So what putt you want to hit, again it's a case... especially with a 30ft tricky putt, it's the same process.... I'd step away, see myself playing it, see it being successful and then I'd feel I'm ready to step in, then play it in my head, its landing... I mean realistically it's not going to be holing them every time, so if they're not going it they're lagging really close for you to tap in.

I - So when you're imaging then, would it ever change, so would you image your first ball going in the hole, your second ball going close?

P - Yeh definitely like, especially going into a competition, like in practice I'd like to almost put myself into scenarios... so like I said realistically you're not going to hit a 30 footer every time so it might be a case where... I mean personally the putts I hate are the 2 – 3 footers which are almost bankers, but you can be careless sometimes, so it might be a case of you might over hit the putt, 3 or 4 feet, maybe 5 feet and you see yourself holing the next putt. So you're almost stepping forward a phase to come

back a phases. It's almost like an image that even if it does go wrong, you're confident you can knock it back in.. so 2 putt, so that gives you confidence for it to not go wrong. Does that make sense?

I - Yeh definitely , so would youre imagery change then, so if you've hit this 30 foot putt, its landed like 10 feet short or 10 feet past, does your imagery change then for the next one?

P - For the 10 footer back in?

I - No because you've got the next ball

P - Ohh the next 30 footer?

I - Yeh

P - Urrr yeh, I mean naturally like you said, it specifically depends on your previous shot, so if you've hit it 10 feet short, you're going to image yourself hitting it a lot harder, so it might be a case of you imaging it going 3 foot past, so you're imaging the hole then, so it stops you quitting on the putt... likewise if you over hit it 10 foot, you might image yourself having a softer stroke. So it all depends on what's happened before the hole because it could all change

I - So would you say then you're imagery changes due to the emotions you're feeling due to the previous shot or previous putt?

P - Yeh like I said earlier, with the more complex shots, I tend to image more, so it would be a case of, if I over hit a 30 footer 2 holes ago, and I've got a 30 footer now then I'm stepping away, I'm seeing myself sort of hit that putt 3 or 4 times before I'm stepping into myself to image, and then that's being lagged up to the hole. So again it's a case of that... and it almost gives you time, by stepping away and seeing that, gives you a time to get rid of that frustration that you might have because if you go, steam into the putt then you've still got those feelings going in there

I - Yeh

P - Naturally, your adrenaline is going to be higher, easily likely to just smash it past again... so it gives you time to relax again... going back into that process that you're used to doing, it takes you away from the moment on the couple of holes before, you're back into the here and now and whats going on now

I - Ok so when you're imaging, can you see the roll of the ball?

P - Yeah definitely, like clearly, because you're on a green on every hole so you're used to seeing the way the ball reacts to the ground and stuff like that.... So yeh its not just a case of, if you're on the green and you know its sloping, like a big slope from left to right, then you're going to see the putt... a nice firm shot, and its going to be trickling down the hill using that break, so you're going to make it realistic to the

putt you're going to hit. Its not going to be a shot that goes straight into the hole, so you can see the hills and the contours and stuff like that.

I - Umm so whilst on the putting green then, can you describe to me the successful ness of each image you're going to do?

P - Yeah ummm... it depends on, if it's a putt I think I can realistically hole

I - So like a 10 footer say?

P - Yeah like a 10 footer, 15 footer then the imagery is that its always going to be going in. Whereas, you're objective for a 50 footer you're not looking to hole it, although you'd like it to go in, realistically, you're looking to sort of lag it up to 2 or 3 feet. Like in my mind that's success, from a 50 feet putt, if I can see myself lagging it to 3 foot, I'm happy with that and that's what I'll see. Whereas with a 15 footer, I'll see it rolling in everytime and that gives me confidence... likewise, if I can see myself lagging it to 3 foot from 50 foot, that gives me confidence as well, because that's what I want to do so..

I - That's all brilliant, what we'll do now is just talk about imagery before a competition and during competition aswel. So say, I don't know, the week before a competition, you've got a competition at the weekend, do you image throughout that week or?

P - Yeah definitely, like I said before, you'd specify you're practice so the first thing you'd do is get a good idea of where you're playing... so if it's not your home course or obviously if it is your home course then all the better because its easy to get those images out of your head. If it is, then it might be a process of getting access to online stuff to just get an idea of what the course might look like or a course planner.. just to sort of see, the sort of shots that you might have to hit, so you're almost like in the weeks or days before, developing a game plan in your head, so you're not just stepping onto the course that day and thinking 'shit, I haven't planned for this'

I - Yeh yeh

P - Like and then it takes all those worries out of it, so if you're mentally preparing through the week, so you've almost feel like you've played 3 practice rounds even though you haven't been to the course

I - Yeh

P - So again it's a confidence thing, it's being able to step onto a course that you don't know so well and you've already feel that you've played it

I - That's good then... so does it change then as you get closer to competition?

P - Urrr yeh I mean, I would... I mean I then start to specify the sort of intensity I'm going to play, so the style I'm going to adopt, so if I image that and I feel it's a course

i can attack, my images would be stonking a driver down there and hitting wedges in, sort of really aggressive towards the pin... likewise if I feel it's going to be a tough course, you're changing your images, so you're adopting a safe style, so its just like I want to hit the fairway, it might not even be a driver, might be a 3 iron or 3 wood

I - Yeh

P - Just get it centre of the fairway, centre of the green and then we'll go from there... so it depends on sort of the game plan that you develop for yourself I think

I - Oh right, what we'll do now is put you in the situation of the hour before your first tee off, just tell me are you imaging then at all or how are you feeling?

P - Yeah definitely, I mean I wouldn't say I stopped imaging really... like right the way up until, even if you're lacing your shoes, naturally in your head you're seeing yourself playing because that's what you're leading up to

I - Yeh

P - It's almost like, you don't want to shut off really, because the more you image, the more you image that shot successful, that first tee shot... like I said you've got a game plan, you know exactly what you're going to do and what you're going to do on that first tee, so you just keep seeing it. It's more and more confident, so the more you image up until your tee time, you just feel even better really and you feel ready to step on there and hit the shot for real.

I - Oh right ok, so would you say you use imagery more often during practice or what would you say in competition?

P - I would probably say competition I think, umm with practice its quite easy to switch off because you know what sort of shots you want to hit, you are imaging a lot but in competition you're constantly sort of reacting to what's happened because it's got an end product at the end of it, like you want to win,

I - Yeh

P - So like we said earlier, if you've hit a bad shot, walking to that shot, you're constantly imaging, you might be thinking what went wrong, so you're ready when you hit that same shot again... but likewise you're thinking how you're going to get out of that position... if you're in the rough on the right hand side, you're imaging yourself like a nice aggressive swing out of that rough and back on to the fairway or even on the green , so it's a constant process in throughout the round so id definitely say more in competition

I - As you said its like a constant process, so would you say you use it pretty much consistently, on every shot on every role, over the course of the round?

P - Yeh I don't think you stop, not at all, because that's the thing with golf even though you're walking up to the ball, you're never stopping thinking like 'what's next' or you might think 'oh the next hole I've played that before' so you're kind of almost stepping forward a bit but at the same time trying not to focus on that but then you're still thinking further ahead... because I mean golf is 18 holes, its quite easy to play hole by hole but you need to develop a game plan that you're going to stick to, so its definitely something that's consistent throughout.

I - Ok all good... So would it change then according too, so say if you're playing a match play competition, would it change in accordance with the state of the match then?

P - Well yeh naturally, putting myself 5 down after 6 holes, you're not going to then like even though in your head you've got a game plan where your just gonna stick it to fairways, middle of the greens and 2 putt

I - Yeh

P - It's a case then, where you've got to do something about it, so yeh definitely the images are going to change... you're imaging yourself be more aggressive off the tee, off the fairways and holing putts and getting birdies, so it will definitely change depending on sort of.... It's the same with stroke play though if you feel that you're playing shit and you're over par, you're not just going to accept that and say oh ok 'I'll deal with that today'... you'd try and turn aggressive

I - Yeh

P - Do it that way

I - Ok so would you say you image, would you image more than when you're in a negative situation (5 down through 6 holes) or would that change at all?

P - Yeh id say I would, because I'm putting myself in the situation where I'm kind off scoring well like level sort of par so I'm going from that process of hitting the fairways and greens, and if you're doing it in the round, so you've got to the 10th hole and you've done it consistently, you almost feel the need where you're almost like on auto pilot... does that make sense?

I - Yeh

P - So sort of you're doing it like, all you have to do is scan over the image and do it... whereas if you are having to change your game plan then you need to really image it because you've got to compensate for those images you've made in the weeks up to the that competition and put that into now and prepare yourself then

I - Alright ok... umm so would you say again, as you say on your practice round, you're always successful in your image, you can always see the ball landing near the hole or?

P - Yeh definitely as in competition even more so...

I - Yeh

P - Because like you've got to stay confident... that's the thing with golf, if you're stepping on to the tee with any negative thoughts in your head then you're done from the outset... so yeh everything I do, every image in my head is always successful, whether that be a putt going in, a putt lagging to 2 foot or a drive stonking through the air straight down the fairway. So yeah always successful.

I - So say if we put you on the 1st tee, just go through your imagery like sort of I don't know what course you play on, but say it's just a drive, a par 4, go through your imagery then?

P - Yeh.. umm stepping on to tee, if I feel I can be aggressive with the driver, my image is literally just, like I said earlier, I'm confident with my driver, I've come up with a game plan before where I can urr see myself hitting the shot, if it's a competition then there's likely to be a crowd there so I'd see yourself within yourself hitting that shot, ends well, middle of the fairway and like a said earlier... it might be an applause from the crowd or even recognition from my playing partner

I - Yeh

P - Orr like you see yourself further on, you win the competition, you win the money, you win the trophy or whatever its being successful.

I - So how does that make you feel then like whilst you're in the image, seeing people clap?

P - Yeh its confidence again, it's showing your competent, like you know you're capable of doing that so why cant you just go out and do it. It gives you a sense of... not pride yet, because that will come after, but just high confidence and ready to play

I - Ok brilliant... would you say then imagery is like effective in serving its purpose then for giving you confidence?

P - 100%... I think without it, you step onto the tee or into the shot almost oblivious to what you want to do and what needs to be done, it helps you... it gives you information in terms of sort of like variables like wind and that you can see it in your head... and like I said earlier if you can see yourself hitting that shot, you're almost like barring with yourself, like 'why can't I hit that shot, I've done it in practice'... it just restores confidence, so it definitely does the job yeh

I - So say if we put you in another situation where you're having a not a great round, and it's a very windy day... so would you say because it's windy you're having a poor day, would the image change at all?

P - The image of me hitting shots?

I - Like successfulness and how effective the imagery is because you're having such a poor day

P - Umm like I said earlier I don't think it would change, because I know in my own head seeing an image of me hitting a shit shot would serve no purpose what so ever. I know exactly what I am imaging for, I'm imaging for confidence and reinforcement of what I am going to do... regardless of the fact that I'm playing shit and I'm hitting rubbish shots, that imagery is the only thing that I've got to full back on, so if you lose that in your head then you may aswel walk in

I - So would then like, the environmental demands like the wind, rain, would that come into consideration into your imagery then aswel?

P - What with the type of shot I want to hit?

I - Like the vividness of the image

P - As in can I feel the wind and stuff?

I - Yeh

P - Yeh definitely, especially if you're out there on the course because you're experiencing the wind hit your face yourself, then you go into the shot and you hit the shot, you can almost be in that moment where you feel the wind moving the ball... so again it's all relevant to what you're going to do... it's pointless being in it, and just seeing it... like I said earlier, you can hear the noises and stuff like that, you can hear the contact, you can hear the gust of wind, you can hear the ball hitting the fairway... so it's all relevant to what's going to realistic when you hit your shot.

I - Ok so, then you would you say it's easier to form images when you're in competition than on the range because you're actually on the course?

P - Yeh I think, as much as you can prepare yourself coming into a competition... like you said earlier, things change, wind, rain something like that, you don't actually experience the exact conditions until that day so yeh it might be a case where sort of 3 or 4 holes in your images are more effective because you're used to the course, used to sort of the feelings of the conditions on that, so its naturally going to make your images better. Because you've felt it yourself

I - Yeh, this is all good information basically... do then, as you said on the range, with different types of shots your imagery would change as in, for your wedges you'd be fully immersed in the shot, same with your driver. Would It change then on the course similar to that?

P - Yeah I think so, same process... you kind of practice what you preach almost, theres no point doing something in practice if you're not going to take that into transition into competition... its again like I hit a wedge all the time

I - Yeh

P - So you don't feel the need... the only scenario I think you can say that, if you're having a bad day with your wedges, then you might, like I said earlier if you're hitting a bad shot then step back, give yourself time to get rid of that frustration, image it and then step in and start that process again..

I - Ok,

P - So same with the course definitely.

I - That pretty much sums up, I think I got everything that I need from that. Is there anything else that you'd like to add in terms of, anything that you feel you've missed in imagery or anything like that?

P - Umm no, everything that's been said is pretty much bang on. There no sort of scenario I could think off that would need any more sort of going over..

I - Thanks very much for your time and help

P - No problem.

Appendix E – High Skilled Golfers Table of Results

High Skilled Golfers

	Cognitive Specific	Cognitive General	Motivation General - Mastery	Motivation General - Arousal	Motivational Specific	Additional Findings
P. 1	<p>most of the time I try and visualise ball flight more than anything... Not so much where it, where's its going because more often than not that's not far off from where I'm aiming</p> <p>I do try to definitely visualise the flight definitely, I do, not so much where the balls going to land but I just like there's many things that could determine that, like obviously its environmental golf most of the time,</p>		<p>I'm visualising ball flight you know on sky sports when you can see the flight</p> <p>That's my shot, like a little 5 10 yard draw starting 5 to 10 yards right of the target obviously so.. if I could visualise that little bit of movement there with the ball, I can see the ball happening it takes off on that line on the correct ball flight that I want it to</p>			

	but definitely the flight	then I know it's going to be a good shot			
P. 2	<p>you've got to work out everything else that goes around it, so if I had to play like a fade, umm I'd play like slightly a different spin, compared to if I was playing just a normal shot off the fairway so then like, it works on my technique more I think, focus more on the technique of the shot that I've got to play</p> <p>I can imagine the wind coming across and how I'd have to like work against it to play like the correct shot</p>	<p>With a 10 foot, with my images, 9 times out of 10 I'd like look at myself putting it, sinking it and then you can hear like peoples claps and sort of thing, then you like imagine yourself going to pick the ball out of the hole and then marking down your score.</p> <p>Still trying to image like the perfect shot , because that's where I gain my most of my confidence from</p> <p>image like a good shot then</p>	<p>I'd start imaging quite like, through Friday. . . playing well through the round, and being in the mix all the way, and come down to maybe like the last, the last pairing, and then I'd sometimes imagine myself have a final winning putt</p>	<p>With a 10 foot, with my images, 9 times out of 10 I'd like look at myself putting it, sinking it and then you can hear like peoples claps and sort of thing, then you like imagine yourself going to pick the ball out of the hole and then marking down your score.</p> <p>I'd sometimes imagine myself have a final winning putt and like sinking it and then like the crowd applauding me and being like, everyone shaking my hand and picking up like a trophy or a cheque or things like that... It will make</p>	<p>So if I did image like every now and then I would try and image a bad shot with the 6 iron and then try and work out why I did it and then I would add little bits to the image that would make me hit a good shot next time</p> <p>and look at what I didn't do well last time and then image myself altering that and going into like say, its drawn off and going into the rough and things like that whereas id try and say oh ok let's hit a nice straight shot</p> <p>I'd say that if I was</p>

			say like I've hit over the tree and its sort of I've stunned the ball, I've hit like 6 foot away from tree, I mean from the hole sorry, and I feel confident of putting that.. umm I wouldn't image myself shanking it or something or like hitting the tree or going into the rough or into the bunker or something like that, like I'd try and always image a good shot in my head I can		me feel like confident.	imaging with a tree with a 6 iron compared to say like a 2 iron or something like that I'd feel a lot more confident imaging the 6 iron and more like, the images would be vivid, like the spins of the ball would be more specific.
P. 3	it might just be a case of with your imagery, you might just view that shot becoming a straight one, so	Coming up with the shot I want, so rather than just stepping up to the ball and hitting it... you come up with	Like in my mind that's success, from a 50 feet putt, if I can see myself lagging it to 3 foot, I'm	so it might be a case of you might over hit the putt, three or four feet, maybe five feet and you see yourself holing the next putt.	so you imagine yourself hitting a good shot and you imagine yourself sort of receiving an applause or even	100%, I think without it, you step onto the tee or into the shot almost oblivious to what you want to do and

<p>that might be a slight difference depending on the club because naturally you hit clubs differently and sometimes the swings is not always the same... so I might image to specify a slight change to see what I prefer</p>	<p>a game plan almost, and you kind of reinforce that game plan within your head</p> <p>I then start to specify the sort of intensity I'm going to play, so the style I'm going to adopt, so if I image that and I feel it's a course I can attack, my images would be stonking a driver down there and hitting wedges in, sort of really aggressive towards the pin</p>	<p>happy with that and that's what I'll see.</p> <p>Whereas with a 15 footer, I'll see it rolling in every time and that gives me confidence</p> <p>if you're thinking how you're going to get out of that position, if you're in the rough on the right hand side, you're imaging yourself like a nice aggressive swing out of that rough and back on to the fairway or even on the green</p>	<p>So you're almost stepping forward a phase to come back a phase. It's almost like an image that even if it does go wrong, you're confident you can knock it back in.</p> <p>it almost gives you time, by stepping away and seeing that, gives you a time to get rid of that frustration that you might have because if you go, steam into the putt then you've still got those feelings going in there...</p> <p>Naturally, your adrenaline is going to be higher, easily likely to just smash it past again, so it gives you time to relax again, going back into that process that you're used to doing, it takes you away</p>	<p>just recognition off your playing partner, yourself hitting that shot, ends well, middle of the fairway and like a said earlier it might be an applause from the crowd or even recognition from my playing partner.</p> <p>you see yourself further on, you win the competition, you win the money, you win the trophy or whatever its being successful. . . its confidence again, it's showing you're competent, like you know you're capable of doing that so why can't you just go out and do it</p>	<p>what needs to be done, it helps you... it gives you information in terms of sort of like variables like wind and that you can see it in your head... and like I said earlier if you can see yourself hitting that shot, you're almost like barring with yourself, like 'why can't I hit that shot, I've done it in practice', it just restores confidence, so it definitely does the job yeh</p> <p>Because like you've got to stay confident... that's the thing with golf, if you're stepping on to the tee with any negative thoughts in your head then you're</p>
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	because literally I'd say my natural drive shot would be a big high draw... So if It came to a hole, where I'd have to adjust my swing to a big high fade, then that's where you step off, image, see that trajectory and then you'd step in		from the moment on the couple of holes before		done from the outset... so yeh everything I do, every image in my head is always successful, whether that be a putt going in, a putt lagging to 2 foot or a drive stonking through the air straight down the fairway. So yeah always successful.
P. 4	I'd use imagery when I'm trying to image shapes of shots, umm I like to move the ball from left to right, right to left depending on where the wind is, what type of shot I've got to play... so I like to imagine the ball flight, how high the balls going, how low its going... yeh so mainly on shot shaping, I also like	image myself in a major tournament like situation, like when you see the players hit a good first tee shot and you hear the crowd around them like cheering or clapping, that sort of thing.. I image a successful outcome and people around me sort of	when put in tricky situations or situations where I feel under pressure then just imaging myself doing it successfully, it just reassures me that you can do it really	image myself in a major tournament like situation, like when you see the players hit a good first tee shot and you hear the crowd around them like cheering or clapping, that sort of thing.. I image a successful outcome and people around me sort of cheering	when I'm walking to the ball just after I've hit a bad shot, I try and picture the swing that I've just done to try and get an understanding to why I've hit the shot, why I've carved it right or why I've shanked it... I try to just remind myself, so again, why I hit the bad swing and then I image myself doing it

to image myself
hitting a nice clean
strike on the turf

if I'm shaping a
shot I like to image
myself like if I want
to hit a draw,
image myself
coming from the
inside and hitting
the ball from inside
to out and creating
the spin that I want

cheering

image what the
ball is going to
do, movement...
and try image
myself hitting
the ball on that
line that I've got
in my mind

I'd just try to
image myself
hitting this
outrageous shot
back out the
trees so if it was
a big slice
around a tree to
try and work a
way back onto
the green, I'd try
and picture that
ball moving
around from left
to right, around
the tree, sloping
off the fairway
onto the green

applauding me for
my successful
shot, almost like
giving myself an
extra pat on the
back for hitting that
successful first tee
shot

imagining the crowd
again like
applauding me for
the good putt,
almost me like
putting my hand on
my hat and
thanking the crowd
and sort of like
yeh, I did that type
thing. Then like
image my
opponent saying
good shot

again in the same
position and hitting
the ball
successfully as
opposed to carving
it right

Appendix F – Low Skilled Golfers Table of Results

Low Skilled Golfers

Key

- Red – negative imagery

	CS	CG	MG-M	MG-A	MS	Other	
P.5	<p>Seeing the smooth swing, and the sweet connection, it's just me doing the shot technically perfect, like I'm imaging myself being in awe of myself</p> <p>I'd image myself completing the skill perfectly from someone else's eyes, so that I can grasp the technical side of it, as in performing the different swing well and hearing the connection of the club on ball, it's what gives me confidence to try new skills.</p>	<p>I image where the ball is going to land so that I can see what I can do next and what my next shot will be. I will be imaging my next shot as well rather than concentrating on the shot I've got to do first to get my ball there</p> <p>I'm probably not gonna hole it, so next best thing is to make sure I get it down in 2. I'm gonna try and image getting it as close as possible</p>	<p>Like even with my friends chatting, if they stopped I would image them chatting over me, so it's like imaging a hostile environment because if I imagine how hostile it can be, then that's like the worst it can get. So then I can play my shot regardless of the environment so i like challenge myself to overcome them chatting, or the noisy wind. So I can make it the most challenging situation as I can, so then I can cope with anything when it actually happens on the course</p>			<p>I'd always imagine a crowd reaction to it going in the hole. I know I'd never have crowds watching me, but that's what I image, like a positive crowd response to it going in...Yeah, like I watch a lot of golf, and the pros always get big applauses when they get it in, so that's what I image just a big applause from the crowd</p>	<p>putting is much more important to my game than driving I think, so now the imagery I use would get more vivid I think</p> <p>It sort of calms me down when I'm nervous about hitting a shot and like, I feel that if I didn't use it then I</p>

I'd image myself completing the skill perfectly from someone else's eyes, so that I can grasp the technical side of it, as in performing the different swing well and hearing the connection of the club on ball, it's what gives me confidence to try new skills.

I'd always imagine a crowd reaction to it going in the hole. I know I'd never have crowds watching me, but that's what I image, like a positive crowd response to it going in... Yeah, like I watch a lot of golf, and the pros always get big applauses when they get it in, so that's what I

would be a worse player. Like, you've got so much time to yourself when you're performing, like because it's a slow game, I can just use imagery to make me feel confident about the shot I'm about to hit.

		image just a big applause from the crowd	
<p>P.6 So if I can see myself lifting my head up before I've hit the ball – Negative</p> <p>So adjust your feet whatever, still see the ball and the club and but it's just how far the club goes back really and what direction you hit the ball in, I'd probably more image myself the full swing this time because it's not very big, and then keeping my head down as I've said before</p>	<p>it's just getting it in an area where you can then, it's just a platform where you can hit your wedges or where you can putt, so it's just getting it to the next step basically, giving yourself the best sort of possible stepping stone</p>	<p>I see myself *makes sound with mouth imitating the ball being struck* just hitting it and then following the ball, all the way to the proper target where I'd like to hit it</p> <p>once you've hit a few slices your imaging yourself, your seeing the ball veer off to the right big time – Negative</p> <p>When I image, its landing within the big imaginary ring around the flag... Yeah to act as a green but not close to the hole, in that imaginary circle... never aiming for, imaging it going in the hole because</p>	<p>I'd like to think ahead over the next like 4, 5 hours, think how I'd feel on the 18th tee, see how I, hopefully think how I'm feeling... just thinking how I'm feeling, so I'm imaging myself like 'ok this has gone well, just one more hole to go and then it's a good score'</p>

		that's just unrealistic, unless it just gets a bit lucky
P.7	<p>I'll be picturing the processes, grip, slow back swing, swing, follow through. Before follow through sorry connection, follow through, ball flight and then landing... Yeah well it's usually within 20 yards, I always try and picture like a fairway, because the range is all pretty much rough going up there, so I try and picture a fairway, so 20 yards either side is rough and I try and picture it basically being on the fairway and then so yeah, like I said, all the time I have a positive outcome</p> <p>It just sort of like clears my mind of</p>	<p>I'll be picturing the processes, grip, slow back swing, swing, follow through. Before follow through sorry connection, follow through, ball flight and then landing... Yeah well it's usually within 20 yards, I always try and picture like a fairway, because the range is all pretty much rough going up there, so I try and picture a fairway, so 20 yards either side is rough and I try and picture it basically being on the fairway and then so yeah, like I said, all the time I have a positive outcome</p> <p>It just sort of like clears my mind of</p>

sort of what I need to do, it ticks the boxes off of those little processes. . . the grip, the back swing and it makes me feel more comfortable so yeh I guess more confident about it as well.

because sometimes I feel like a try and hit the ball too hard when it comes to the driver, like my backswing is too fast and stuff like that, so I try to concentrate on things like slowing my back swing up, connecting with the ball and then the follow through and then obviously the ball flight

like my visions, my processes are still the same, so my

sort of what I need to do, it ticks the boxes off of those little processes. . . the grip, the back swing and it makes me feel more comfortable so yeh I guess more confident about it as well.

but it's always in the back of my head 'don't shank it, don't shank it' but the routine is always the same but I'm not thinking about the grip, the swing, and the connection and then the ball flight, I'm just thinking about don't shank it negative

I just have in the back of my mind, I'm not concentrating so much on my routine, I'm just concentrating on the

grip, my back swing,
connection, follow
through, ball flight
but then I don't
know where it lands,
so the outcome
ends in the ball
flight

fact that I don't want
to shank it -
Negative

my putting routine is
come behind the
ball, crouch down,
picture the ball
going to the hole
and which
movements that it
will take, so on this
green left to right or
right to left, umm so
I picture that, so I'm
not there so I
literally just picture
the ball moving. I
don't see anyone
hitting the ball or
anything like that

P.8 If I really want to
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I think when I'm
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I literally just imagine in my head where I'm going to hit my driver, I normally hit my driver quite straight, so all I'd imagine is hitting my driver long and straight, I don't really imagine anything specifically

I find most of the time, I'm more successful when I'm imagining where my shots actually going to go, and I'm not thinking too much

about my technique
and anything like
that like that,
because I think in
most shots if you're
not thinking about...
if you trust that you
have good enough
basics to actually
play the shot, then
that should take
care of itself and if
you just imagine
where you're going
to play the ball more
often than not that
works for me

but if I at the end of
that session im
hitting the fade and
the draw that I want
to, purely by
imagining a
successful strike, I
feel a lot more
confident when
going back out onto
the course
