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## **Motivation in elite athletes**

A study on what makes a set of female swimmers perform above or under their expected potential.

**Master thesis in Sport Sciences**

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## Abstract

*Background and Purpose:* What makes some athletes perform at their highest potential level whilst other athletes fail to do so? A good understanding of an athlete's motivation is critical to a coach designing an appropriate environment and to maximize their athlete's physical potential. This paper examines how motivation is experienced and expressed by a group of elite athletes within the framework of Self-Determination Theory (SDT). *Method:* Participants were five female elite swimmers from the United States who had competed at either Olympic or World Championship level. Qualitative data was collected using semi-structured interviews. Of the five participant 3 were high performing and 2 were low performing. Selection criterion was based on what they scored at each end of the scales that measured burnout, followed by the coaches rating and the athlete's satisfaction. The participants ranged from freshmen to seniors, associated with the same college team. *Results and Discussion:* The results of this study found that SDT can be a helpful tool in describing what motivates elite athletes. An interpretative phenomenological analysis yielded eight principal themes. In the high functioning group; (1) Meaningfulness (2) Transference of ability; (3) Trust in the coach and training program (4) Communication skills and healthy adaptation; and (5) Handling of hardships. In the low functioning group; (6) Loss of passion (7) Lack of return on investment; (8) Weary workouts; (9) Diffusion of responsibility; (10) Time management. The findings are discussed in light of Self-Determination Theory. The findings suggest that elite athletes can be extrinsically motivated at a high level and not as intrinsically motivated as earlier presumed. Nonetheless, the environment of the athletes is complex and there is indication that other variables such as valued of relationships (e.g., family and boyfriend) seems to play an important role in differentiating between the well-functioning athletes and the struggling. These will be further discussed. *Conclusion:* Findings of this investigation indicate that high performance athlete had their needs satisfied and further, show high level of self determined motivation. Consequently, low performing athlete did not have their need satisfied, showed low levels self determined motivation and even indication of amotivation. However, it is not as clear cut because some of the thriving athletes showed signs of non self-determined motivation and low performing athlete showed indication of intrinsic motivation.

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# 1. Introduction

Performing at the elite level requires one to be highly motivated, hard working and obsessed with achieving success. But what are the perceived forces that push a person to pursue such forms of excellence in the sporting arena? And why do some athletes perform better than others? More precisely, what makes some athletes perform above their expected potential and some perform under? There are features of human psychology that stimulate an organism to act toward a desired goal or elicit control over the environment through directed behaviors. Superficially, these driving forces are often referred to as motivation. Ryan and Deci (2000) have argued the importance of motivation and how it influences the way in which people think and behave. They argue: “*Motivation produces. It is therefore of preeminent concern to those in roles - such as managers, teachers, religious leaders, coaches, health care providers, and parents - that involve mobilizing others to act*” (Ryan and Deci, 2000:69). The purpose of this research is, based on SDT, to examine the experience of motivation in elite performers in sports. More specifically, the study is on elite female athletes swimming in the United States. In this paper I will investigate a) how does the experience of motivation differ from high performing athletes versus low performing athletes under a season of swimming out from a self-determination perspective? If in fact the well-functioning athletes have more of their basic needs satisfied compare to the struggling athletes? And if there are other factors that might affect the relationship how motivated is facilitated by the athlete?

## 2. Theory

During the last decade, there has been considerable research investigating the application of Self-Determination Theory (SDT; Deci and Ryan, 1985, 2002; Ryan & Deci, 2000) in sport and exercise settings. This theory of motivation has provided a comprehensive theoretical framework to examine motivational processes of participants in sport. A large body of motivational theories in the sporting context focus on competence related issues (e.g *Achievement Goal Theory*; Nicholls, 1989; *Self-Efficacy Theory*; Bandura, 1986). SDT is a multidimensional theory, which in addition to competence also posits the need for an activity to be proactively chosen (i.e need for autonomy), and the need for social connection and belonging (i.e need for relatedness). It is hypothesized that the fulfillment of these needs lead to a high quality form of motivation, effective functioning, enhanced performance and well-being (Standage & Ryan, 2012). If these basic psychological needs are not fulfilled, they may lead to unfavorable outcomes like stress, anxiety, and self-criticism (Lemyre, Treasure & Roberts, 2006). According to SDT, humans have an innate tendency to seek out novel challenges and experience mastery in their own environment

### 2.1 Self-Determination Theory

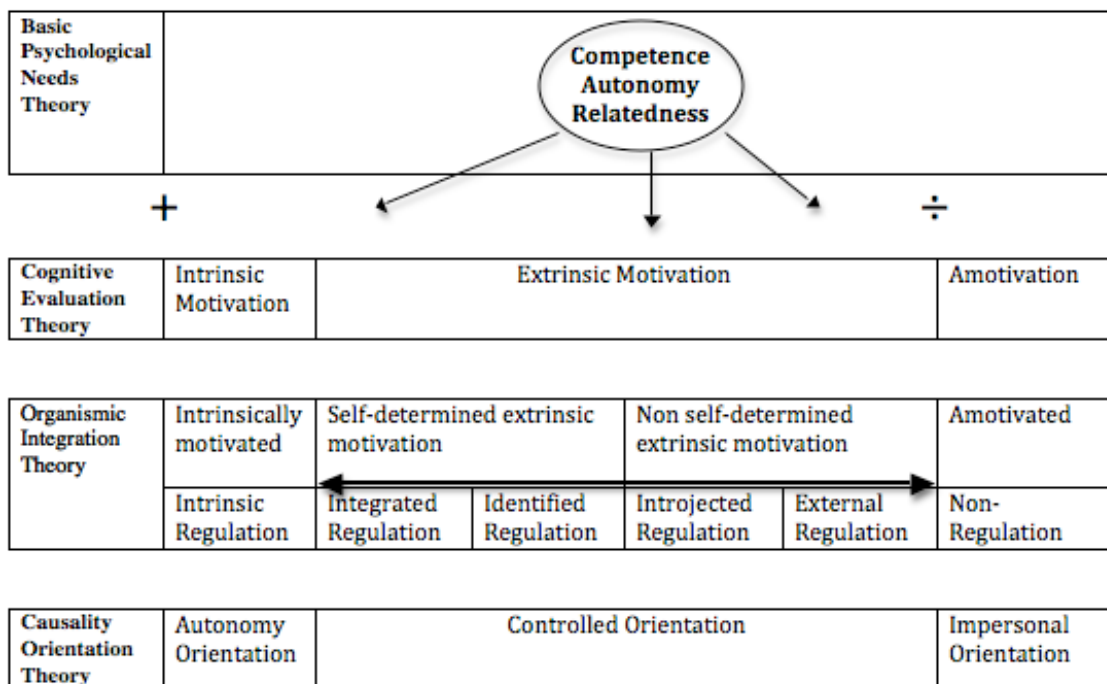


Figure 1. Self-Determination Theory, with four mini-theories

Deci and Ryan (1985) proposed SDT as a framework to understand the social-contextual conditions that enhance or undermine intrinsic and extrinsic motivation. In explaining intrinsic motivation, several researchers have focused on the innate need to demonstrate competence, autonomy and relatedness. This concept was later presented as the Basic Psychological Needs Theory (BPNT; Ryan & Deci, 2000). The need for competence is the first tenet of SDT and refers to “feeling effective in ones own ongoing interactions with the social environment and expressing opportunities to exercise and express ones capacities” (Deci & Ryan, 2002:7). By effectively mastering their environment, athletes may experience a sense of achievement and continue to undertake new challenges to satisfy this need to demonstrate competence. Is the learning experience perceived as unchallenging and thus too easily leads to boredom? Cresswell and Eklund (2005) found that an amotivated athlete who experienced training to be monotone and boring was correlated with burnout. Also, activities that are perceived to be too challenging or difficult can lead to frustration and possibly a perception of incompetence. The second tenet is the need of autonomy; the process of doing an activity out of own volition. Autonomy refers to ”being the perceived origin or source of one’s own behavior” (Deci & Ryan, 2002:7). For example, an athlete may participate in sports out of his or her own free will. If so, the perception of choice comes from within. The perception of having a meaningful connection to others is the third fundamental need of humans proposed in SDT. The need for relatedness refers to “feeling connected to others, to caring for and being cared for by others, to having a sense of belongingness both with other individuals and with ones community” (Deci & Ryan, 2002:7). The need to be accepted by others and belong to groups like a swim team, family or significant others is critical to a healthy perception of self (Deci & Ryan, 1985; Vallerand, 1997). When these basic psychological needs are satisfied, a more self-determined form of motivation is expected. The concept of psychological needs provides a basis for describing properties of the environment that support or weaken an athlete endeavors to master new situations.

Intrinsic motivation is associated with the inherent tendency to seek out challenges, to extend and exercise one's capacities, to explore, and to learn (Ryan & Deci, 2000). According to SDT, intrinsically motivated behaviors have an internal locus of causality where the enjoyment is derived from participating in the sport activity itself. SDT



generally describes extrinsic motivation to be related to behaviors that are prompted by a perceived external locus of causality and this can be perceived as lack of choice. For example college students may feel coerced into participating in sport to maintain a scholarship. When extrinsically motivated, an individual engages in an activity to derive some kind of external reward or to avoid punishment (Deci & Ryan, 2002). Further research proposed the existence of a continuum of extrinsic motivation that varies with respect to levels of self-determination. This kind of internalization is studied considerably under the organismic integration theory, (OIT) and is based on the assumption that “people are naturally inclined to integrate their ongoing experiences, assuming they have the necessary nutrients to do so” (Deci and Ryan, 2002:15).

<b>Organismic Integration Theory</b>	Intrinsically motivated	Self-determined extrinsic motivation		Non self-determined extrinsic motivation		Amotivated
	Intrinsic Regulation	Integrated Regulation	Identified Regulation	Introjected Regulation	External Regulation	Non-Regulation

Figure 2. The Self-Determination Continuum Showing Types of Motivation With Their Regulatory Styles.

Self-determined extrinsically motivated behaviors are characterized by choice. Deci and Ryan (1985) proposed integrated regulation and identified regulation as two types of self-determined extrinsic motivation. a) Integrated regulation is the state most autonomous of all the forms of extrinsically motivated behaviors. It occurs when identification has been evaluated and brought into congruence with the personally endorsed values, goals and needs that already is part of the self. Integrated regulation shares many qualities with intrinsic motivation although the behaviors are performed volitionally, they are still considered extrinsic because they are done to attain important outcomes for the person, rather than for the inherent interest and enjoyment. b) Identified regulation is characterized by the conscious valuing of a behavioral goal or regulation, an acceptance to the behavior as personally important. Actions are identified with the individual’s values and thus are perceived as having a higher degree of autonomy. Non self-determined extrinsically motivated behaviors are associated with external rewards and punishments. For example attending training because you wish not to feel guilty. c) Introjected regulation is partially internalized within a person but is not considered a part of the integrated self. Introjection is a form of internalized regulation, but is hypothesized to also be somewhat controlling. d) External regulation is associated

with a behavior to satisfy an external demand or socially constructed contingencies. This is the prototypical external motivation, which is driven by avoidance of punishment or obtaining rewards. Amotivation is the last major type of motivation and is characterized by the lowest level of self-determination. Amotivation is a state where the individual lacks the intention to act (Deci and Ryan, 2002). This may be a product of feeling inadequate or believe that the results are unattainable. The athlete can perform a task without intention or act passively. Researchers argued that extrinsic motivation relates negatively to intrinsic motivation (Deci and Ryan, 1985, 2002). Cresswell and Eklund (2005) have found that amotivation correlates with burnout and inversely, that being intrinsically motivated has a negative correlation to burnout.

Cognitive Evaluation Theory (CET; Deci, 1975; Deci and Ryan, 1980) specifies factors that influence this variation in intrinsic motivation. CET is a mini-theory of SDT that evaluates the social and environmental factors that facilitate or undermine intrinsic motivation. This theory predicts that rewards given to an individual in an achievement context can either promote or undermine intrinsic motivation. How the athlete perceives the reward determines its influence on motivation. If the reward is perceived as providing information about competence, the reward is predicted to enhance intrinsic motivation. However, if the reward is perceived as controlling, the reward is predicted to decrease the athlete's perception of autonomy and in turn undermine the individual's intrinsic motivation. CET predicts that environments which focus on winning and large financial incentives like in elite sports, are conducive to promoting lower levels of self-determination and consequently, lower levels of intrinsic motivation (Vallerand, Deci, & Ryan, 1987). Laboratory research (Vallerand, Gauvin, & Halliwell, 1986) and field research (Fortier, Vallerand, Brière, & Provencher, 1995) support the prediction of CET, that competition has a negative influence on intrinsic motivation. Competitions are conducive to promote a focus on winning that is externally motivated and give a reduction in the quality of motivation through its negative effect on self-determination (Valle Rand, Deci & Ryan, 1987). Participation in sport usually takes place because of the enjoyment. The time when athletes start to consider becoming a competitive athlete is not always clear-cut. It is hypothesized and researched that competition undermines intrinsic motivation and promotes higher levels of extrinsic motivation. The logical extension then is how elite athletes, when compared with athletes who participate at a lower level of competition, will be characterized by high levels of extrinsic motivation and low levels of intrinsic motivation.

## **2.2 SDT and elite athletes**

A primary goal in elite sport is to win. SDT contend that the extrinsic focus, like winning, often associated with elite sport, can undermine intrinsic motivation and promote extrinsic motivation (Deci & Ryan, 2002). Is participation in elite sport always extrinsically motivated? Several theories of motivation predict that the structure of competitive sport will promote a decrease in forms of self-determined extrinsic motivation and intrinsic motivation. Research to date has not fully supported this prediction. However, Fortier, Vallerand, Brière and Provencher (1995) examined motivational difference in competitive athletes compared to recreational athletes. The authors found that higher levels of amotivation and lower levels of intrinsic motivation characterized competitive athletes compared to recreational athletes. Findings revealed the potential undermining effects of competition on intrinsic motivation. The authors concluded that competitive athletes, although less intrinsically motivated compared with recreational athletes, were likely to choose to commit to the demands of competitive sport. One of the limitations put forward by the researchers was that they did not examine motivational processes at significantly different levels of competition in sport. Furthermore, the participants in the study were intercollegiate athletes from junior colleges who competed in recreational intramural competitions (ibid). If competition undermines intrinsic motivation and promotes higher levels of external motivation, it is logical to think that elite athletes display high levels of external motivation and low levels of intrinsic motivation will compare to athletes who compete on a lower level. Recent research has not supported this assumption (Chantal, Guay, Dobreva-Martinova and Vallerand, 1996; Forzoni and Karageorghis, 2001). Chantal et al. (1996) examined the motivation of 98 elite Bulgarian athletes. Findings reveal that more successful athletes compared with less successful athletes were found to have high levels of amotivation and higher levels of non self-determined extrinsic motivation. The authors reported “title and medal holders seemed more inclined to report external rewards and feelings of obligation and pressure as their primary sources of motivation than less successful athletes” (Chantal et al, 1996:179). One limitation suggested by the authors is that the findings may have been influenced by the centralized structure in Bulgaria at the time. The increase in non self-determined extrinsic motivation and amotivation was expected to correspond to a decrease in self-determined extrinsic motivation and intrinsic motivation. Unexpectedly, their research did not find a difference in self-determined forms of motivation as proposed by SDT. Forzoni and Karageorghis (2001) examined the motives of elite soccer players. They predicted that as the players

progressed in age through to the professional ranks, a significant increase in external rewards like money and pressure to perform would undermine intrinsic motivation and foster extrinsic motivation. The authors found no significant differences between groups. The external rewards were not found to be controlling. Interestingly, intrinsic motivation scores were relatively high for all groups. In summary, there has been little research on motivation conducted with elite athletes and the research to date has yielded equivocal findings. There is even less research on SDT on elite athletes. Research on sports participation using Achievement Goal Theory (AGT; Nicholls, 1989), found that individuals, all the way down to 12 years of age, could have both a positive approach to motivation (i.e task orientation) and a negative approach to motivation (i.e ego orientation). This achievement goal orientation is orthogonal, meaning that one can be high or low in each or both orientation at the same time (Roberts, 2012). Is it possible to have more than one motivation?

Furthermore, the motivational aspects of burnout and burnout are another issue that has not been well investigated. For example, it is necessary to establish the suggested relationship between the thwarting of basic psychological needs in accordance with Self-Determination Theory and burnout, because the amotivation is found to have a high correlation to burnout in athletes (Cresswell & Eklund, 2006, 2007; Lemyre et al 2006).

### **2.3 Athlete burnout**

Already in the 1970s, Freudenberg (1974) noted athletes as a group that could potentially be afflicted by burnout. Burnout has been an issue of interest in the sport domain, and under debate for quite a period of time (Gould, Udry et al., 1996). Researchers have argued that without a precise and consensual definition, the term burnout might become too broad and undifferentiated (Raedeke, Lunney, & Venables, 2002). In initial work by Smith (1986), athlete burnout was defined as a psychological, emotional and at times physical withdrawal from an enjoyable activity, as a result of chronic stress. More recently, athlete burnout has been defined by three dimensions; of (1) physical and emotional fatigue, (2) reduced sense of personal accomplishment, and (3) devaluation of sport participation (Raedeke, 1997; Raedeke & Smith, 2001).

### 2.3.1 The measurement of athlete burnout

A tool for measuring burnout in the sports domain has been developed: the Athlete Burnout Questionnaire (ABQ) (Raedeke, 1997; Raedeke & Smith, 2001). Earlier questionnaires, had been argued, work well in practical settings but do not differentiate between the fatigued and the burned-out athlete. These tools only measure physical exhaustion and reduced sense of accomplishment. Because athletes can be fatigued and experience reduced accomplishment without suffering from burnout, this tool has some limitation in research (Raedeke, 1997). Building on earlier work, like Eades (1990), this inventory focus on athlete burnout and not occupational burnout. The Athlete Burnout Questionnaire consists of 15 items measuring the three dimensions of (1) Physical/emotional exhaustion, (2) Reduced sense of accomplishment and (3) Sports devaluation. This questionnaire shows to be a promising tool for measuring and monitoring burnout.

## 2.4 Self-Determination Theory and Burnout

In the last decade, a series of studies have had a closer look at the potential mechanisms behind the onset of athlete burnout. A promising framework has used an SDT-based approach (e.g., Cresswell & Eklund, 2005; Lemyre et al., 2006; Lemyre, Roberts, & Stray-Gundersen, 2007). Using SDT as a motivational explanation of athlete burnout seems promising, as there is evidence for the fulfillment of the basic needs for optimal functioning and well being (Ryan and Deci, 2000). From a SDT standpoint there is an inverse relationship between burnout and intrinsic motivation and accordingly there should be a positive relationship between burnout and amotivation (Cresswell and Eklund, 2007). Cresswell and Eklund (2006) found that burnout correlates positively with amotivation and correlates negatively with intrinsic motivation. Lemyre, Treasure and Roberts (2006) found that elite swimmers that had a shift in the quality of motivation were related to burnout susceptibility. Lonsdale, Hodge and Rose (2009) used Self-Determination Theory to investigate the relationship between behavioral regulations and athlete burnout, and whether more self-determined motivation mediated the relationship. Results from these findings showed a positive link between less self-determined motives and burnout and a negative correlation between more self-determined motives and burnout. Furthermore, fulfillment of the basic psychological needs showed a negative correlation with burnout scores (ibid). Much of the motivational research has been conducted in academic settings and to a lesser extent in

sports and exercise. Within the sports and exercise environments, motivational research has focused on recreational and sub-elite athletes (e.g., competitive level athletes). Few studies have been conducted examining the motivational processes of elite athletes and even fewer studies employing qualitative methods have been found. A qualitative methodology was employed in the present study for two. First, it was felt that the semi-structured interview process would provide an in-depth understanding of the motivation of this special group of athletes by capturing rich representations of their experiences, thoughts and feelings. Second, unknown factors that may be characteristic of this special cohort of athletes may not be identified in the general dimensions of questionnaires. The aim is that findings from this study will assist and inform coaches developing and implementing training programs that can increase motivation and decrease maladaptive training outcomes like injury, burnout and discontinuation in sport.

### **3. Methods Section**

In this research project a semi-structured interview has been used as a method to gather vivid and rich information about how different athletes experience their performance within a season. The goal is to gain insight into the informant's own experience, emotions, thoughts and feelings. Semi-structured interviews were conducted with five females to gain a further understanding of the psychological experience of motivation during an entire swimming season. This meant that the psychological content of motivation constituted the main analytical focus of the study. Participants were female undergraduate students, and were swimmers at an elite level. In this analysis a phenomenological approach was used in an attempt to have an open outlook on the subjects descriptions and interpretations. Furthermore, examination into how five different athletes experienced motivation during a swimming season. The swimmers were put into two groups, a thriving group (Quinn, Laura and Gwen) and a struggling group (Daphne and Kimberly), on the basis of some specific selection criteria. The data was collected in a longitudinal study on overtraining by a research group (Lemyre, 2005).

#### **3.1 Methodology**

The terms methodology and method are often used interchangeably. In this paper I will use Silverman's (1993:1) suggestion that "methodology" refers to the general approach in addressing a research topic (i.e. the qualitative method) whereas "method" describes a specific research technique (i.e. semi-structured interviewing). The qualitative method branches from an epistemological tradition, where the goal is to construct an understanding of phenomenon that is associated to a person and situations in their social world.

##### **3.1.1 Qualitative methodology**

"Qualitative data are records of observation or interaction that are complex and in a context, and they are not easily reduced immediately (or, sometimes, ever) to numbers" (Richards, 2009:34). Further, researchers like Kvale (2005) argue that the goal of qualitative research is to collect data about the subject's world that can lead to a scientific explanation. The structure depends on what topic is researched, what target group is researched and what the researcher wishes to accomplish. Since, the research question in this study was, "how athletes experience motivation" and because of this,

using of qualitative methods was the preferred method to enhance our understanding. One way of getting such an understanding is to interview participants.

### 3.1.2 Interview- semi structured interviews

Semi-structured interviewing is a widely used method for collecting data in qualitative research, because of its compatibility with other methods and logistical advantages (Willig, 2008). Examples of compatible methods can be; focus groups, surveys and interpretative phenomenology. Furthermore, with this method one can arrange a series of interviews with a small numbers of volunteers. The questions in a semi structured interview are put forward from the researcher to function as a trigger to encourage the participants to talk and steer the interview to obtain the kind of information that will address the research question. The interviewer has to balance between allowing the subject space to generate insight and control the interview to cover the topics (Willig, 2008). Johannessen, Tufte, and Kristoffersen (2007) further argue that a semi-structured interview gives a balance between this standardization and flexibility. Issues regarding difference in gender and social class must be reflected on. In addition to this the researcher has to handle the somewhat ambiguous role where he or she guide the interview through a formal interview and open to informal conversation through open-endedness that emphasize their own experiences. A well-constructed interview guide can be a helpful tool to achieve this.

## 3.2 Sampling

The difference between quantitative and qualitative methods is often captured in the different logic that puts forward the foundation for the sampling approaches. Whereas, quantitative methods are concerned with a randomly chosen statistically significant sample, qualitative methods are preoccupied with fewer subjects that can shed insightful light on a complex phenomenon. Typically, qualitative sampling is done purposefully; to ensure information rich data, rather than quantifying randomly selected larger samples.

### 3.2.1 Purposeful sampling

The logic and strengths behind doing purposeful sampling comes from the information-rich data that is selected for the case. For these cases providing themes and categories are fundamental to understanding the research question, thus the term



purposeful sampling. Building on the work of Patton (1990), a theory-based approach was adopted or operational construct sampling. The aim of this sampling is to find manifestations of a theoretical construct of interest so as to further explore and observe the construct (ibid). In this project, five informants were chosen, 3 were in the high-functioning group and 2 were in the low functioning group. The sample consists of female athletes only, so gender biases could be dismissed. These athletes were from the same college, had the same coach, training program and so forth. Since my goal is to explore the different experiences of motivation, and not to find a causal relationship in the antecedent between STD and burnout, this sample served its purpose. The sample was purposefully selected on the basis of specific criterion.

### 3.2.2 Selection criteria

Participants in this study had to fulfill three criteria in order to be selected. The first criteria was the total burnout score from the a) Athlete Burnout Questionnaire (Raedeke and Smith, 2001) ranked athletes on a scale from 1 (good score), to 5 (burned out). To be selected in the low performing group the athlete score above 3.80 to be at high-risk and below 1.60 to be in at low risk of burning out. The second criteria was the athlete's own rating and goal attainment. The athletes were rated on a scale from 1, that meant all goals were achieved, to 5, that meant none of the set goals were achieved. c) Satisfaction with the season was rated form 1, 100% satisfied, to 5, that meant not satisfied at all. The third criteria was the coach's performance assessment and was rated from a scale 1 (exceeding all expectations) to 3 (under expectations).

### 3.2.3 Informants in my sample

The sample consists of 5 female athletes who are swimming at a collegiate level. Three of them are in a high-functioning group. This means they had a low score on the burnout scale, exceeded coach expectations and were reportedly satisfied with their own efforts and at reaching their goals. The low functioning group consisted of the athletes who scored high on the burnout inventory, coaches reported performance below expectations, there was a self reported disappointment in the season and at not being able to reach their goals. All the informants are given pseudonyms to ensure their anonymity.

Table 1. Brief overview of the participants in the study.

Grouping	High performance			Low performance	
Pseudonym	Quinn	Laura	Gwen	Daphne	Kimberly
Age/Class	Junior	Freshmen	Sophomore	Junior	Senior
Distance	Short	Long	Middle	Short	Middle
Major	Marketing	Accounting	Supply chain management	Finance	Kinesiology and psychology
Living sit	With swimmers	With swimmers	With swimmers	With swimmers	With swimmers
Relationship	Boyfriend	Boyfriend	Single	Single	Single

*Quinn* is a junior in college. She studies business and her goal is to become a marketing major. She lives with other swimmers, not teammates like some of the other women in the sample, but she lives with her boyfriend that equally is a swimmer.

*Laura* is the youngest in her freshmen year. She studies business accounting. She is the only swimmer that lives in a dorm (during the time of the interview) and shares a room with a swimmer. She dates an athlete, but he is not a swimmer. She is the only girl in the high-functioning group that is American.

*Gwen* is a sophomore. She studies business, and just got into supply chain management. She lives with a teammate. Being an international student, she had some problems adapting to the American school system and culture, but on the other hand this spurred onto gaining a relatively high share of international friends.

*Daphne* is a junior and studies finance. She just moved in with a swimmer from the team, after living in an apartment with other swimmers. Her season has been challenged by an injury.

*Kimberly* is a senior and is the oldest in our sample. She is a double major in kinesiology and psychology. She lives with a course mate in an apartment. This was her last year competing in swimming.

### 3.4 Procedures

As mentioned earlier, the participants were divided into a burnout group and a high functioning group. The interviewer was blinded as to which group the participants were in and no information about earlier performance, year in school, questionnaire score, or any events the athlete competed in prior to the interview. Each of the interviews lasted from 50 minutes to 90 minutes.

#### 3.4.1 Interview guide

The aim of having an interview guide is to secure that the central themes are covered in an interview that might best lead to rich and in depth descriptions of the topic that is researched. A good constructed interview guide can ensure that the interviewer will stay on track and as can be used as a tool for finding the thread when subjects lose track (Richards, 2009). On the other hand, the interview guide can lead to repeating questions and challenging the flow of the interview (Willig, 2008). One way to arrange the guide is by topic, where the interviewer identifies topic headings instead of questions. This may lead to an excessive involvement ending up with questions that are less open-ended and more direct than necessary. Questions, better formulated and reflected upon can lead to better interviews, especially if the interviewer is less experienced (Willig, 2008). The questions in the beginning should be of a more public nature before moving on to more personal questions after the relationship and rapport is established. By doing this, it is important that the interviewer is aware of the complex dynamics of the situation. Interviews that maintain an informal ambience that can take advantage by an interviewer and make the subject reveal more than they may be comfortable with. Therefore, the interviewer should be thoughtful of the rapport between the individuals and of ethical considerations (ibid). All the questions in the interview guide were asked but not necessarily in the same order, in order to give the conversation a natural flow. The themes that were covered in the guide were: Focus, 1: School, 2: Swimming in general, 3: Nutrition, 4: Social environment, 5: Illness and Injuries, 6: Training, 7: Relationship with the coach, 8: Rest, 9: Traveling, 10: Motivation. Example of the questions being asked where:

Focus 2: Swimming, in general: “How do you compare this season to the expectations you had before the season started?”

Focus 7: Relationship with the coach: “Did the coach seem like he was only concerned with getting results?”

Focus 10: Motivation: What makes you want to get up in the morning and go to practice? Has this changed through your career?

### 3.4.2 Recording, transcription and other practical aspects

The interview was tape recorded, and then transcribed. The advantage to this is that the researcher can concentrate on the interview instead of taking notes while interviewing (Thomas, Nelson and Silverman, 2005). If the interviewer concentrates too much on his or her notes, this can take focus away from the interview as well as ruin the flow of the interview by giving short answers to participant responses. Distracted note takers might also be prone to repeating sentences and forgetting important statements. This is an important point since the way questions are framed and asked sets the tone for the interview. Therefore starting with more general questions and then probing for more personal questions can be a good procedure. Furthermore talking about things the interviewee knows well and that are fresh in memory gives time for the interviewer to establish rapport with the interviewee (Willig, 2008). In this interview guide a series of open-ended questions were asked. The follow-up probes allowed for the athletes to elaborate and clarify their responses to ensure that the topic was adequately covered (Patton, 1990; Raedeke, 2002).

Transcribing is to translate the recording into written text. Everything is written down literally as said in the interview. The reason for transcribing is a way to organize the data and to make the analysis easier (Kvale & Brinkmann, 2009). In the results and discussion section I have chosen to present quotes from the transcribed interviews. Even though, transcribing can help the analysis, there is challenge of losing meaning and important data in the translation. I have, intentionally, removed the coughing, sighs, hesitations, hawking and repetitions to make it easier to understand the content and to create a better flow in the paper ensuring that the meaning was not altered.

## 3.5 Analysis

### 3.5.1 Interpretative Phenomenology Analysis

The aim of interpretative phenomenology is to gain a better understanding of the nature and quality of phenomenon (Willig, 2008). Or as Jonathan Smith puts it; “An attempt to unravel the meanings contained in...accounts through a process of interpretative engagement with text and transcripts” (Jonathan Smith, 1997:189). This method draws on the hermeneutic tradition and argues that description constitutes a form of interpretation and understanding that cannot take place without initial assumptions. The meaning of what we are trying to understand is also affected by these preliminary assumptions. In analyzing the data in this paper, I as a researcher and former swimmer, had to reflect on my assumptions will interpreting the interviews.

This version of interpretative phenomenology analysis (IPA) is for the researcher to explore the subject’s experiences from their own perspective, while reflecting over own views and interpretation about phenomenon, in addition to the dynamic between the two in the interview setting (Willig, 2008). Consequently, a series of steps were followed that allows for identification of themes and cluster them into meaningful categories, within and across cases. At the basic level, interviewing of IPA shares methodology associated with semi-structured interviewing. Therefore, his method works well with transcripts of semi-structured interviewing and in turn optimal for my research design. The analysis was framed by the work of Willig (2008) *Introducing qualitative research in psychology*.

Stage 1. The researcher’s initial encounter with the text

In the initial stage, the researcher has to make sense of the experiences. This involves reading and rereading transcripts of the interviews. It can be helpful to read the whole text, in order to obtain a coherent picture before the analysis. After reading all the interviews, notes were taken and a form of open annotation referring to psychological concepts were produced; such as motivation “its just how I am” and needs satisfaction “he, the coach, gives me individual attention”.

Stage 2. Identification of themes

The second stage of the analysis, usually, requires the researchers to identify themes. Themes, ought to apprehend the crucial feature of what is represented in the text. The analysis was framed by theory. Consequently, the themes were framed by psychological terminology describing social context and motivation.

Stage 3 Cluster of themes.

At this stage, structure was introduced into the analysis. Some of the themes were formed into natural clusters of concepts that shared meaning. It is important in this stage that structure generated by clustering themes make sense in relation to the detail of the respondents accounts.

Stage 4 Production of summary table.

The final stage involves producing a summary table. Structured themes, together with quotes and illustrations display the quality of the participant's experiences of the phenomenon under investigation. Because of the nature of the investigation (i.e theory based) the summation of meaning categories was based on the theoretical framework and in categories interpreted by the researcher.

### 3.5.2 Limitations of IPA

IPA is concerned with experiences and meaning, gained through systematic guidelines, which allow to identify and integrate themes. But, like all forms of research, this method suffers from conceptual and practical limitations. The role of language matters because IPA assumes that language provides the subjects the tool to capture their experience. However, the role language plays could construct a reality rather than describe it (Willig, 2008).

In this paper the research question and the data material lead the analysis process. Themes and categories were framed by the theory and by following an interview guide, to ensure that the topic under research appears. Result-, analysis, and discussion in the research are a result of the 5 interviews. The data software, MAXQUDA, was used when coding and categorizing the data. All the informants' texts were analyzed extensively and compared under the different themes in the interview guide. Quotes where chose to from the informants in addition to text to enhance the points the informant provides by telling their story and give the reader insight into the analysis

process. The results are linked to relevant theory in relation to the research question, and will pose as a fundament for the research project. The aim was to link existing theory to empirical data to better understand the informant's thoughts, feelings and reflections at the level of analysis.

### **3.6 Ethical consideration**

There is a concern in the social sciences, maybe especially in psychological research, that there is a risk of revealing crucial information that will in turn affect the research data. Brinkman and Kvale (2009) support this by arguing that in qualitative inquiries, researchers affect the participants and visa versa. Subsequently, producing knowledge through qualitative research affects our understanding of human nature and ethical issues air form the beginning.

In qualitative research there is a relationship between a researcher and the informant. The researchers have to decide on the ethical concerns, such as how much information to reveal to the participants without it affecting the research. These guidelines addresses issues like informed consent, right to withdrawal and confidentiality. Participation was completely voluntary and all subjects were free to leave the study at any time without offering a reason (Guidelines for the Protection on Human subjects, 1992, APA, 2002). Informants signed a consent form before the interview, which was approved by the ethics board.

The purpose of informed consent is to inform the research participants about the goals of the investigation. The researcher should ensure that the participants are fully informed about the research procedure and give their consent before the data collection takes place. As mentioned, the researchers should ensure that participants feel free to withdraw without fear of any consequences. It is important to ensure that others cannot recognize the information revealed throughout the interview, like friends, trainers, colleges, etc. Furthermore, interview subjects should be informed where their information will/might be published and how it is going to be used. All the participants were informed about the right to withdraw and ensured anonymity as reflected in this information from the interview guide.

*"Rest assured that everything that you say will be kept confidential; nobody will know that you've said something in particular. So, if we present any of the data, we will protect your confidentiality (Appendix: interview guide)."*

### **3.7 Credibility, transferability, dependability and conformability.**

Generally, quantitative research addresses the issue of validity and reliability, which refers to if what we are measuring is in fact what we should be measuring and if we are doing it correctly. In qualitative research the term trustworthiness is used. Several researchers (Lincoln and Guba, 1985; Rossman and Rallis, 2003) describe trustworthiness as the overall quality of the results for the qualitative study. To ensure good quality, the research used 4 concepts based on Lincoln and Guba (1985) credibility, transferability, dependability and conformability. The first concept of *credibility* refers to context where the study is being conducted. Description of how the researcher understands the setting and context is critical to the evaluation's findings. Interviews were part of a larger study. Subsequently, the participants were familiar with the researchers and the topics being studied. The interview was executed in the participant's own arena, that is to say that the participants were in a secure and familiar environment. The second concept of *transferability* is evaluation if the results in the study could be useful to those in similar settings or people conducting similar research. As argued earlier, is the sports arena, an ideal place to look at factors that influence performance? The goal is to produce knowledge that can be transferred to other areas of performance. The theory applied in this paper has a sound theoretical foundation well research and applied in several domains such as, religion (Ryan, Rigby, & King, 1993), physical exercise (Chatzisarantis, Biddle, & Meek, 1997), political activity (Koestner, Losier, Valler- and, & Carducci, 1996), and intimate relationships (Blais, Sabourin, Boucher, & Vallerand, 1990), among others. Subsequently, one can consider the transferability. *Dependability* is the third concept and deals with the issue of how the researchers deal with changes during the data collection. For example if the researcher changes how he conducts interviews based on the background of the interviewee, if not the data would lose some of its depth. It is hard to plan for such contingencies, but it is how the researcher deals with the change that determines the dependability of the data. This was safeguarded in different ways. For instance, through an interview guide that allowed the interviewer to keep a thread through the interview. Recording the interview allows for playing the interview back and transcribing it. And by peer reviewing, allowing other researchers read the transcripts and gives their input on the interview. Finally, *conformability* addresses researchers bias. All researchers come into a study with bias. Other methods like quantitative methods, reliability/statistics are calculated therefore managing or reflecting over these biases are particular important. Admittedly, there could be an issue of gender and cultural difference in interpreting the data, which



will be elaborate in the discussion. However, using the SDT framework proved to be a helpful tool when reflecting on my biases.

### 3.8 The trustworthiness of the study

The quality of the research relies on different factors. As shown earlier this is paper is a qualitative study and must be read as such. By reflecting on credibility, transferability, dependability and conformability the research aims for constructing a design that will capture factors that determine motivation. By following the scientific method, it can be argued that the findings indicate what is put forward in the results, but not without limitations. Firstly, this is a master thesis. The process has been both educational and frustrating. The learning from this process is to be patient, disciplined and stick to the theory. Not being part of the data gathering process, lead to some questions that couldn't be followed up, and being a semi structured interview based on theory yielded some constraint on the analysis. However, as a master student getting access to data of such a high quality would be difficult. So, with the limitation I faced, I chose the best-suited method for the set of data I had access to. By using the suggested method and trusting the theory I am humbly confident on my findings.

## 4. Results

In this section, the results of the analysis are presented. The purpose of this study is to investigate the experience of thriving and struggling athletes within the same competitive environment from a self-deterministic point of view. The participants are female elite swimmers, interviewed in respect to motivation and performance. The software program MAXQDA was applied in the analysis of the data material. The results will be presented in the following manner:

First, I will give an example that illustrates how the different “meaning categories” were produced on the background of the quotes derived from the interviews. Second, I will elaborate slightly on the “meaning categories”. Finally, these categories will be discussed in depth in the discussion section.

(1) Motivation	<b>Meaning categories</b>
(2) Transference of ability	
(3) Communication skills	
(4) Trust	
(5) Hardships	
(6) Loss of passion	
(7) Lack of return on investment	
(8) Weary workouts	
(9) Diffusion of responsibility	
(10) Time management	

Table 2. High performance group. Excerpts of the quotes, grouped into meaning categories.

Theme	Quotes	Meaning categories
<p>School:</p> <p><b>Q: "Looking back at the season since September, how would you describe your workload at school?"</b></p>	<p><i>"You just do it... It has become part of my life at this point, I think ... I've been doing this for most part of my life, ... how is that possible, not swimming? You know, that is what I was thinking. So, having that part of my life and I'm totally happy with that." (1)</i></p> <p><i>"Like for this period of life, I know that this is what I want and what I need." (1).</i></p> <p><i>"School is going pretty well and I'm like really happy, you know, about the business school and excited about my major."(2)</i></p> <p><i>"That's how I feel. Not only in the pool, but like school...I take more care of my actions, I'm thinking more of what I'm doing. I'm thinking about like what consequences these actions are going to have" (2)</i></p>	<p>(1) Meaningfulness</p> <p>(2) Transference of ability</p>
<p>Swimming, in general:</p> <p><b>Q: How do you compare this season to expectations before the season started?"</b></p>	<p><i>"Start to get good... better grades... it lifts my mood a little bit" (2)</i></p> <p><i>"Maybe I'm used to it too, like I adjust myself depending on his reaction"(3).</i></p> <p><i>"Now I understand that when he says something like that it's not really that he means it, but it's just that he kind of makes conclusions so fast and he gets like really angry about it. Now I'm like, I just like kind of listen and then I'm like, "Okay, wait until next day" (laughs). (3)</i></p>	<p>(3) Communication</p> <p>(4) Trust</p>
<p>Training:</p> <p><b>Q: "Thinking back on everything that has happened since September, how do you feel that your training went?"</b></p>	<p><i>"And, you know, he like really didn't want to listen. He was like, "This is how you have to do it, like do it like how everybody does it". And I'm like, "Okay." You know, so." (3)</i></p> <p><i>"I always take his suggestions" (4)</i></p> <p><i>"I was an example because of my results. And like my coach always said, whenever I said to go easy, she goes easy. Go fast, she goes fast... 50% ... she goes 50%. And that's what make you get better." So, I've always been like that. (4).</i></p> <p><i>Not only school, but also swimming and like everything. Everything was like wrong with me... And I wanted to go home and I wanted to quit everything (5).</i></p>	<p>(5) Hardships</p>
<p>Relationship with the coach:</p> <p><b>Q: "Did the two of you have good communication?"</b></p>	<p><i>Um, my family situation it didn't change much, I mean, they're still there- so I miss them like. Uh, it's actually getting worse, and worse before it my family, like I miss them more and more. I was hoping that the more time I spent here in the United States it's going to be easier and easier, but it's getting harder (5).</i></p> <p><i>This past year has been like very stressful for me (5).</i></p>	

Table 3. Low performance group. Excerpts of the quotes, grouped into meaning categories.

Theme	Quotes	Meaning categories
<p>School:  <b>Q: "Looking back at the season since September, how would you describe your workload at school?"</b></p> <p>Swimming, in general:  <b>Q: How do you compare this season to: expectations before the season started?"</b></p> <p>Training:  <b>Q: "Thinking back on everything that has happened since September, how do you feel that your training went?"</b></p> <p>Relationship with the coach:  <b>Q: "Did the two of you have good communication?"</b></p>	<p><i>"I loved swimming so much ... and I still like it a lot, but I won't say that I have nearly as much passion.(6)</i></p> <p><i>To enjoy swimming again, totally, I mean, completely find the love for it that I used to have.(6)</i></p> <p><i>"Cause, the same thing happened to me like almost every year. Like I would do really good for like the first like 4 or 5 months, and then I... it would just be like a decrease, I think. I don't know if it was mental or, I felt like it was physical, like my body just didn't want to do it anymore" (7)</i></p> <p><i>"(Crying more softly) I mean, I was the type of person that always did everything 100% because like he was my coach, obviously, I thought that I should trust him, you know?"(7)</i></p> <p><i>"Like I said ...he's very predictable, so it got very boring and monotonous." (8)</i></p> <p><i>"I feel like mentally... I got so burned out of it just from like doing the same thing, every single day would be like a variation of the same thing. And we would all just like laugh, basically and be like, "Oh, cool. Like oh my God." (8)</i></p> <p><i>And you know, I really - I loved swimming so much - and I still like it a lot, but I won't say that I have nearly as much passion. (8)</i></p> <p><i>"And um, but, the way that he trains is like not the way that I trained when I was successful in sport." (9)</i></p> <p><i>Even though it was not long ago, but. Um, I guess it's- he would just kind of like- I'd be like, "Oh, coach, like watch my stroke" or something. I just feel like he didn't really know much about stroke technique. I think he doesn't really know-(9)</i></p> <p><i>Like in high school, I was pretty much- I didn't really swim with the team. I went through a lot of different coaches. Um, college, I didn't really have a lot of confidence in the program- And the program was pretty bad....eventually people just like died out there. So, this is the first like structured team I'd say that I was in. (9)</i></p> <p><i>I don't know, just to have time to mentally like get caught up on your schoolwork. And like have time to spend time with your friends- and like people other than the swim team. (10)</i></p> <p><i>You just kind of get really mentally burned out. They were making us do like all these extra "The Survivor Game," which was like kind of fun, but at the same time it was like an extra hour or two a day. When you like, "I just want to be sleeping right now, I don't want to be doing this." (10)</i></p> <p><i>Yeah. Then, that just kind of made me realize, "Like, oh my God, I'm so like broken down and tired." (10)</i></p>	<p>(6) Loss of passion</p> <p>(7) Lack on return on investment</p> <p>(8) Weary workouts</p> <p>(9) Diffusion of responsibility</p> <p>(10) Time management</p>

## 1. Meaningfulness

This category is about how a thriving athlete makes sense of their involvement in swimming. Motives for swimming differ for all the athletes, but the common theme is that the athletes have a healthy approach to the sporting activity. They especially make sense of swimming in terms of what drives them in aspects like achieving what they set out to accomplish. Competing is an important factor in why they are swimming, however motives like self-development is expressed as meaningful by one athlete. Another athlete emphasizes traveling. Subsequently they seem to attach meaning in line with this which gives them great joy and happiness.

## 2. Transference of ability.

To master one area gives confidence. This meaning category does not refer to transference in a direct sense, but rather performing well in swimming can lead to the confidence to master other areas in life. The athletes represented here have a tendency to perform well in school, as well as in the sporting area and for some even master a new language. As one athlete notes; “I guess that I cannot tell where my limits are...what can I do now?” Furthermore, if an athlete feels “on top” in swimming, they may be able to use the extra energy for other areas like schoolwork. The competence of these athletes, in opposition to the low-performance group, can lead to them using more of their resources towards performance in other aspects, instead of towards satisfying their basic needs. These aspects can contain self-development as one athlete expresses, “I’m thinking more of what I’m doing. I’m thinking about what consequences these actions are going to have:” She not only refers here to her swimming, but to life in general.

## 3. Communication skills and healthy adaptation.

This category refers to how some athletes adapted and took feedback in a different way than the participants in the low-performing group. Feedback refers to the verbal communication and comments about their swimming. All the athletes said that communicating with the coach could be somewhat challenging. Thriving athletes found strategies for either handling the negative feedback or found a better way to communicate, instead of criticizing the coach. For example the athletes may experience the training as boring and monotonous but found ways to adapt, for instance by focusing

on arm techniques or turns or swimming “nicely”. Whilst the other group complained, “this is not how I train to be successful in sports”. The lack of results seemed to frustrate the relationship between the coach and the athletes. One aspect could be that the lack of result leads the coach to give harsher feedback to some athletes. Another aspect could be that the lack of result may lead the athlete to release their reaction to the feedback on their swimming and may go harder than the coach tells them. This leads to the next category related to trust.

#### 4. Trust in the training program and the coach.

The athletes-coach relationship has been studied and found to be meaningful. Subsequently, this category occurs in the high performing athletes. There seems to be a differentiation between the well functioning and the struggling athletes with regards to the confidence in the coach. This appears in relation to the coach who is responsible for the training program and who creates the atmosphere where the training takes place. The high performing athletes have a tendency to display trust when it comes to the training program and the coach, whilst the lower performing group tended to show distrust and question the training program. This is apparent in some of the struggling athletes statements, which express that the “coach doesn’t really know breaststroke” while thriving athlete, explains about the same coach “he’s really good with breaststroke”.

#### 5. Handling of hardship.

This last category from the high performing group comes from the way these athletes handle adversity. These athletes have a tendency to thrive in spite of struggling with issues related to swimming and their personal life. Rather than allowing this to affect their performance they overcome it and rise to the challenge. To master other areas can also give a boost in confidence. Subsequently, it appears that they are able to use their knowledge at exceling in sports to master other areas of their life. Furthermore, they have the tendency to focus on improving aspects of their personality or the sense of self.

#### 6. Loss of passion

In this motive, the athletes report swimming being more of an obligation than an enjoyable activity. Usually, they start swimming at an early age and for fun. Competing

is especially reported to be an important aspect of swimming. However, athletes in the low performing group may not demonstrate their ability or receive meaningful feedback in the form of results if they are not able to compete because of injuries or poor results. Furthermore, a lack of performance over time may frustrate the motivation affecting the fun element of the activity. Some athletes state explicitly that they have lost their passion, but there is a tendency to report that swimming is more of a “job” or “habit” unlike the thriving athlete who reports it as “fun” or “it makes me happy”.

#### 7. Lack of return on investment.

This meaning category relates to the demonstration of ability. More often, the motive for starting sport participation is the pleasure in the activity itself. While, the transition from being a competitive athlete to an elite one is often not clear-cut. As athletes progress, the demands increase. If the performance does not add up to investments made by the athlete, they may become less motivated. By investment, it is meant those hours in training and sacrificed in order to become an elite athlete. As reflected in statements like, “I missed a lot of weddings, birthday parties. Any kinds of event that you could think off, I’ve missed one.” How does an athlete justify spending so much time and energy on swimming and not get “anything” back?

#### 8. Weary workouts

This category means that training is perceived as boring and monotonous. Striving athletes who lose their motivation more than often experience this. All participants complain that training can be boring, however the thriving athletes adopt a healthy approach to the weary workouts. For example focusing technique or “swimming nicely”. If training is not perceived as fun or meaningful athlete can lose their motivation and the amount of work done in training can prove to be too much. Athletes refer to trainings that are especially boring as “garbage yardage”.

#### 9. Diffusion of responsibility.

The data suggest that poorly functioning athletes tend to blame their lack of success on the trainer or training program. They blame external factors as the reason for not producing results. Statements such as “the training is too hard, the coach doesn’t really know me, this is not how I train to be successful in sports” is associated with the

striving athletes. Further, the athlete states, “I didn’t really have a lot of confidence in the program”. As mentioned, high-functioning athletes tend to own their problems and adapt to the feedback. Struggling athletes rationalize, why skills are not developed, to the insufficient skills of the coach.

#### 10. Time management.

Time is interesting for two reasons. During the season the data indicates a trend for the low performing group to report the feeling of not being able to follow up social engagements or being physically and mentally exhausted. Although, participants in the high-performing group also reported being exhausted, they are not dealing with issues of getting enough rest or the guilt of not following up on social obligations. Is the strain from training and performing in school so high that it eventually leads to negative motivation for the athlete? There is an issue of the long time perspective; how do the athletes experience the transition from high school to college swimming? How long can the athlete swim before getting the results that are expected? A freshmen student who is under-performing has four years to get better, furthermore as they progress in college the workload in school also increases. Consequently, the total workload grows which might be especially challenge if motivation levels in swimming are already low.



## 5. Discussion

The aim of this investigation was to examine to what extent “Self-Determination Theory” (e.g., Deci and Ryan, 1985; 2002) can explain the difference in the experience of motivation between athletes who thrive versus athletes who struggle. The data comprised of a semi-structured interview of five female elite swimmers to ensure rich knowledge on the topic. After analysis and presenting the results I will discuss the findings further.

The questions asked were: (1) if Self Determination could be used as a tool to explain the differences in motivation and thriving versus struggling athletes; (2) if thriving athletes have more of their needs fulfilled, compared to the struggling athletes; and (3) how do other factors like, time, social context and gender affect the relationship between motivation and performance?

An interpretative phenomenological analysis yielded eight principal themes. In the high functioning group: (1) Meaningfulness; (2) Transference of ability; (3) Trust in the coach and training program; (4) Communication skills and healthy adaptation; and (5) Handling of hardships. In the low functioning group: (6) Loss of passion; (7) Lack of return on investment; (8) Weary workouts; (9) Diffusion of responsibility; (10) Time management.

This discussion section will be structured in three parts. First, I will address the issue of motivation. Secondly, I will review the needs. Thirdly, I will discuss other factors that are harder to place in respect to the theory.

<b>Motivation</b>
(1) Meaningfulness - (6) Loss of passion
<b>Competence</b>
(2) Transference of ability - (7) Lack of return on investment
<b>Autonomy</b>
(3) Communication skills - (8) Weary workouts
<b>Relatedness</b>
(4) Trust - (9) Diffusion of responsibility
<b>Other factors</b>
(5) Hardships - (10) Time management

## 5.1 Motivation

### (1) Meaningfulness versus (6) Loss of passion

The reason for sport participation may differ from athlete to athlete. However, thriving athlete, beside their motives for swimming, show high level of internalized motivation. It so much a part of them, that they can no longer imagine themselves not swimming.

*“You just do it. It has become part of my life at this point. I’ve been doing this for most part of my life, so how- how is that possible, not swimming? So, having that part of my life and I’m totally happy with that”*

This category relates to personal values are already a part of the self (Ryan & Deci, 2000). Being an integral part of the self, shares many qualities with intrinsic motivation. Although, the behavior performed voluntarily is still considered extrinsic because they are made to achieve a significant outcome rather than for their inherent interest and enjoyment (ibid). Typically, people begin swimming for fun at a young age. The struggling athletes report that swimming was an enjoyable activity but now feels more like an obligation. According to SDT, extrinsic motivation is related to behaviors that are perceived from an external locus of causality, and can be perceived as a lack of choice. For example college students may feel coerced into participating in sport to maintain a scholarship. When extrinsically motivated, an individual engages in an activity to derive some kind of external reward or avoiding punishment (Deci and Ryan, 2002).

*“And you have to- if you want to be on our team, you have to go to practice.”*

To compete is an important part of swimming and athletes who are low performing cannot get meaningful feedback if they do not compete. With meaningful feedback, it is meant to not be able to fully show their competencies because of injury or poor results.

*“Because I mean, I swam terrible, I had one of the worst meets I had ever. And on top of that, transferring in, you know, nobody’s really ever seen me before. So, it’s really **hard just to like, to keep up the confidence.** And you know, I’m sure that half my teammates think like I’m not really a good swimmer- and I*

*might not be anymore. But, it's just frustrating that I can't like prove it, and you know, whatever."*

Athletes in the low performing group report losing their passion for swimming. Amotivation is a type of motivation where the individual lacks the intention to act or believes that outcomes are unattainable (Deci and Ryan, 2002). Although all athletes had goals and believed them to be attainable, the athletes who didn't achieve their goals may experience feeling inadequate and in turn impair the need for competence. Researchers argued that extrinsic motivation relates negatively to intrinsic motivation (Deci and Ryan, 1985, 2002). Cresswell and Eklund (2005) have found that amotivation correlates with burnout and inversely being intrinsically motivated has a negative correlation to burnout.

*But I- there were many times when I thought about not swimming anymore*

*In fact, it really- a lot of what really bothered me was the fact that I was even considering quitting.*

The athlete specified the importance of competing, which make sense for the athlete, but may contradict intrinsic motivation (Vallerand, Deci, & Ryan, 1987; Fortier, Vallerand, Brière, & Provencher, 1995) Findings in this study suggest that the high performing group, characterized by having a high quality of motivation, showed tendencies of being extrinsically motivated. In SDT, external regulation associated with doing a behavior is to satisfy an external demand or driven by avoidance of punishment or obtaining rewards (Deci & Ryan, 2002). Statements of the high performing athletes:

*"I'll get in trouble if I don't go."*

*"And like, um, I like um, doing hard sets and finishing them knowing that I- like that I got that much in or I burned that many calories.*

Furthermore, research has found that more successful athletes, compared with less successful ones, were found to have higher levels of amotivation and higher levels of non self-determined extrinsic motivation. (Chantal, Guay, Dobрева-Martinova and Vallerand, 1996; Forzoni and Karageorghis, 2001).

*"Outperform and to compete and all...I was really struggling my first semester because I wasn't eligible to swim- to compete"*

The low performance group also showed indications of internalized motivation; this suggests that the lines are more blurred than “black and white”. The nature of the paper has its’ limitations, therefore, a more comprehensive study is needed to examine this further. The findings suggest that the two groups in the study experience motivation differently, yet they may share strong similarities as well. As some of the findings indicate, the high performing athletes show levels of extrinsic motivation and conversely the low performing athletes show levels of self-determined motivation. Some studies underpin these findings, namely that elite athletes can produce good results, in spite of being somewhat extrinsically motivated. However, in spite of the selection criteria in this study, all the participants are at a high level of competence. All participants are elite athletes in a highly competitive sport, this may lead to the blurry lines in the experience in motivation. However, athletes who are able to achieve their set goals display their abilities and gain confidence. Those who don’t achieve their goals may feel inadequate and in turn impair the need for competence.

## **5.2 Basic needs**

### 5.2.1 Competence

#### (2) Transference of ability - (7) Lack of return on investment

Individuals from all walks of life, including elite athletes, are motivated to demonstrate competence. Participants in the high performing group show that they are able to perform in other areas like mastering a new language and school. By mastering one area like swimming, can lead to the confidence to master other areas. The sense of achievement, for example success in elite sport is associated with the capacity to master the social environment, and is reflected in the demonstration of competence (Harter, 1978). This is consistent with SDT (Ryan and Deci, 2000). In effectively mastering their environment, people experience a sense of achievement and provide them with a sense of accomplishment, which in turn, positively influenced self-determined forms of motivation (ibid).

*“And not only in the pool, but like school- I take more care of my actions, I’m thinking more of what I’m doing. I’m thinking about like what consequences these actions are going to have.”*

*“Start to get good- better grades, so like- like it lifts my mood a little bit.”*

Furthermore, if athletes feel “on top” in swimming, they may have extra energy to put into other areas like schoolwork. Fulfilling their need for competence, in opposition to the low-performance group, these athletes can use more of their resources to master other areas to fulfill the need for competence. This might be done in other areas:

*“Like I’m probably the- the hardest girl on the team in the weight room.”*

*“For, well, I’d say like- I mean, my main goal is like sometime before I die I want to do like the Ironman.”*

Or, in the case of injury, were the athlete does not master her environment.

*And um, I actually- not to put all of it on this, but I’ve actually been injured since last June. And it turns into a cycle. I mean, it was just a matter of, like, “How much can you do today?” And I couldn’t really train my stroke during the season.”*

The transition from being a competitive athlete to an elite one is often not clear-cut. It is obvious that the demands increase, however if the performance does not add up to investments made by the athlete, the athletes may get less motivated. How does an athlete rationalize using so much time and energy on swimming and not get “anything” back? The theory states that humans have an innate tendency to master their environment. Also, activities that are perceived to be too challenging or difficult can lead to frustration and possibly a perception of incompetence. The feeling of inadequacy is associated with lower levels of self-determined motivation and amotivation.

*“It got- at first, you know, I wanted to be into racing and everything and then it got into survival mode where I like- you know, it wasn’t a matter of How fast can I go? It was like, Can I go?”*

Entrapment.

The participant’s conception of ability is a critical factor in the individual’s interpretation of the competitive situation. If the participant has a belief in her ability, the competitive situation is likely to be perceived as providing information to improve the quality of motivation. Surely, this is a dynamic process but there is an issue of when the athletes will get a payoff from all their “hard sweat”. There might be several theories

hypothesizing in coping strategies, goal orientation or personality traits. According to SDT, the innate tendency to experience competence, might offer some explanation to persistence. However, an interesting issue is how long an athlete can function without getting a meaningful feedback on competence. Especially in a sport like swimming, their results can be measured relatively accurate with time. Gould et al (1996) argued that motivation could go awry. By not achieving the set goals, the athletes invest even more time and energy to get better, depleting energy even faster. In the end, the individual tries to keep up with the hard training schedule and the risk for burning out and getting to a state of amotivation gets higher.

*“I- and that’s been my problem every year. It’s like, we start training like the first day we get here, which is like August- end of August... cause, the same thing happened to me like almost every year. Like I would do really good for like the first like 4- 4 or 5 months, and then I- it would just be like a decrease, I think. I don’t know if it was mental- or, I felt like it was physical, like my body just didn’t want to do it anymore.”*

*(Crying) Like you’re just like swimming, swimming all the time and like kind of feel so caught up in it.”*

Swimming is a big part of their life, but it is not everything.

*“This is not what I want to do for the rest of my life. If somebody asked me like, Is this like your dream here like something that you imagined your life to be? It’s not. It’s totally not...like for this period of my life, I know that this is what I want and what I need.”*

## **5.2.2 Autonomy**

### **(3) Communication skills - (8) Weary workouts**

The athlete’s-coach relationship has been studied and found to be meaningful (Williams, 2001). Accordingly, the coach is an important instrument in creating an atmosphere and can be meaningful for the facilitation of motivation (Ryan and Deci (2000). The participants in this study share the same environment. Consequently, an interesting finding is how differently they experienced the training program and the coach. The high-performing athletes, presumably due to their success, tend to trust the coach’s judgment and show belief in the training program, whilst athletes in the low-performing group tend to not show trust in the skills of the coach and questioned the training program.

*And, you know, he like really didn't want to listen. He was like, this is how you have to do it, like do it like how everybody does it. And I'm like, okay. You know, so."*

Compared to the low performing group:

*"I didn't really have a lot of confidence in the program- And the program was pretty bad. And eventually people just like died out there."*

Subsequently, there is a matter of distrust leading to lack of autonomy; elite athletes by definition have a high ability (Hardy, 1997). As some of the athletes report: "I know my body well", may lose the sense of autonomy if their suggestions are not taken into account. There is an interesting issue on how autonomous the athlete really can be at an elite level? Typically, the head coach controls the training with little room for change. Isn't training meaningful or has the athlete lost the motivation; the amount of work done in training may prove to be too much or the training can be perceived as too monotone and boring. Studies have shown that athletes who lose their motivation often perceive their training as monotonous and boring (Cresswell and Eklund, 2006).

*"So, like I think I feel like mentally I would just- I got so burned out of it just from like doing the same thing like- seriously, every single day would be like a variation of the same thing. And we would all just like laugh, basically and be like, oh, cool. Like oh my God."*

Structure that foster autonomy.

The tenet for need of autonomy is the process of doing an activity out of own will. As mentioned earlier, participants perceived training to be structured with little room for control. However, structure in sports is about giving the athlete clear expectations, ideal challenges and informative feedback (Edmunds et al, 2008). How the athlete perceives the feedback can determine its influence on intrinsic motivation (Deci and Ryan, 2002). If the reward is perceived as providing information about competence, the reward is predicted to enhance intrinsic motivation. However, if the reward is perceived as controlling, the feedback will undermine the individual's quality of motivation. Furthermore, if the structured environment can be experienced as autonomy supportive, if the values and beliefs views coincide with the athlete's own views (Edmunds et al, 2008).

Humans have a desire of control, or the sense of control. Individuals don't want to feel

helpless in the face of unseen forces. If the athletes are thriving, it fosters trust and confidence in the athletes who in turn can be translated into autonomy support because it coincides with the athletes own value system. However, if the athletes don't get meaningful feedback, like in the form of results, the structured training may be experienced as controlling and not as autonomy supportive. Furthermore, if the athlete doesn't feel that they are in control over their behavior the workouts can be experienced as boring and monotone, with in turn shares characteristics with burnout. Consequently, if the athletes experience the lack of control, and they are not able to communicate this effectively to their coach, the athletes might detach from the responsibility of producing results.

### 5.2.3 Relatedness

#### (4) Trust - (9) Diffusion of responsibility

As mentioned earlier, how the athlete interprets feedback is important for the experience. Williams et al (2003) further argues that in addition to the coach's personality and behavior, the athlete's perception of these traits is important to the relationship. As shown, trust is an important subject creating an autonomy supportive atmosphere. Participants in the high performing group seem to interpret feedback differently than the participants in the low performing group. All participants reported it was somewhat challenging to communicate with the coach in the beginning, but thriving athletes found strategies for either handling the negative feedback or find a better way to communicate, instead of criticizing the coach. Example of healthy adaptation:

*“But now I understand that when he says something like that it's not really that he means it, but it's just that he kind of makes conclusions so fast and he gets like really angry about it. But, you know, now I'm like, I just like kind of listen and then I'm like, okay, wait until next day (laughs).”*

This beneficial approach doesn't appear in the low performance group. Usually, they expressed distrust and blamed the lack of results on the coach. For example all the athletes may experience the training as boring and monotonous but they find ways to adapt, for instance focus on arm techniques or turns and so on. Whilst in the low performing group there was a tendency to disown the problem:



*I wasn't exactly trained the way that I wanted to train. The way that he trains is like not the way that I trained when I was successful in sport.*

As mentioned, the other high functioning group has tendencies to own up to their problems and adapt, whilst the other blames it on poor communication or the training program. The lack of trust in the skills of the coach often provides the non-performing athletes a rational explanation for why the abilities are not progressing. Findings in this paper indicate a strained relationship between athletes in the low performing group and the coach.

*"No, I think he's like too stubborn...He's an intimidating person, that's how I feel."*

There is a need to have meaningful relations to others (i.e the coach) and be accepted by others and belong to groups like the swim teams, family or significant others (Deci & Ryan, 1985; Vallerand, 1997). CET, show how the socio-context can affect motivation (Deci, 1975). The constant disappointment of not attaining the goal put forward by the athlete or the coach can frustrate the relationship. Furthermore, injured athletes may have to follow an individualized plan, and this might further frustrate the relationship.

*"Um, and of course, I wasn't able to do a lot of the stuff that I wanted to or should."*

Is swimming a lonely sport?

Feeling connected to others, to be cared for and caring for others, having a sense of belongingness both with other individuals and with one's community is associated with the need for relatedness (Deci and Ryan, 2002). Individuals may have a strong relationship with others members of the team. All participants reported living with and hanging out with other swimmers on the team. However during the workout, the athlete is under the water most of the time. Some participants emphasize the fact that traveling and spending their leisure time with other swimmers creates a sense of belongingness. While, in practice there might be issues concerning this topic:

*"I always hear people on the other side of the pool, they had people cheering for each other, you know, and everything and it's kind of like it seems a lot more fun... It's like, I think one thing is that it's a bigger group and another thing is that it's mostly sprints and short stuff where you can like talk to other people a lot more."*

## The positive and negative spiral.

Putting it all together. Issues of positive or negative events leading to fulfillment of needs opposed to thwarting of needs may have a significant affect on motivation. For instance in scenario A, The athlete does well in training and competitions thus leading to a bigger chance that the need for competence is fulfilled. By getting results, showing great ability and achievements can lead to more freedom to regulate one's own training by getting assurance from the coach that in turn satisfy the need for autonomy. Lastly, by producing good results, not complaining over the training program, because there is a sense of self endorsement, the athlete seem more likable to the coach or the other swimmers looks up to the athlete because she sets a good example the need for relatedness will be realized. This is one hypothetical way and positive spiral that may shed light on how events can affect motivation.

*“And um, pretty much I was an example for all them since I was like even 16, 14, 15, you know, 17, 19... I was an example because of my results. And like my coach always said, he was like, whenever I said to go easy, she goes easy. Go fast, she goes fast. Go medium-, like 50%- she goes 50%. And that's what make you get better. So, I've always been like that. But just because I've always been like that.”*

But inversely in scenario B, this process goes the negative way if the athlete yields bad results or maybe suffers an injury. The injury may affect the competition and training, by not being able to perform at their own maximum potential. This can affect the need to effectively master ones own environment and in turn generate a drop in confidence. Furthermore, the athlete, because of injury may start training too early after treatment or an athlete may train much harder than required that will lead to bad results that affect the sense of competence. By not performing up to standard, the coach may be more controlling in the workouts that affects the need for autonomy. Or the athlete may feel that she needs a break. This may frustrate the relationship between the coach and the athlete and consequently influence the need for relatedness. Another scenario may be that because of other difficulties, the athlete starts comparing herself with others in the training and focus her frustration over on them, instead of focusing on one's own performance.

*“I mean, sometimes like we would do the same things as the guys. So, obviously, that would get frustrating because they were getting like so much rest compared to us.”*

The meaning categories, suggests that need has an impact on motivation. The satisfaction of need will maintain and foster self-determined motivation. However, there have been some inconsistencies in the strength of the three needs in predicting the various strength of motivation in SDT. When examining all three needs simultaneously the various forms of motivation has been somewhat inconsistent (Reinboth, Duda, & Ntoumanis, 2004; Amarose and Anderson-Butcher, 2007). Chantal et al, (1996) One suggested that the centralized communist structure in Bulgaria at the time, may have influenced the way in which motivation emerges. This suggests that culture may play a role in how motivation should be understood in elite athletes. However, this warrants further investigation.

#### **5.2.4 Other factors**

##### **(5) Hardships - (10) Time management**

Handling hardship usually is attributed to hardy personalities, or mental traits like mental toughness. This meaning category was more problematic to place according to the theory. Findings in this study indicate that the some individuals deal with difficult situations in advantageous way, rather than letting this affect their sports performance they overcome the difficulty and rise to the challenge. According to SDT, mastering other areas can give a boost in confidence; the knowledge in excelling at sports can be used to master other areas of their life (Deci and Ryan, 2002). However, the reports seem more complex than initially assumed. Scenario A: Firstly, the athlete comes from a country in Europe, resulting in being away from the family over longer periods of time. Secondly, she came to a new country where she had to learn a new language and in addition to adapt to the new school and culture.

*“Um, my family situation it didn’t change much, I mean, they’re still there- so I miss them like. Uh, it’s actually getting worse, and worse. I miss them more and more. I was hoping that the more time I spent here in the United States it’s going to be easier and easier, but it’s getting harder.”*

In spite of this she, gets in to a good business program and does well in swimming. Looking at the data as a whole, it is challenging to attribute one factor that will explain such a complex situation. However, the overall impression is that a social factor such as a boyfriend or family can have a meaningful impact of the recourses an individual has to handle hardships.

Scenario B: This athlete is struggling with swimming or getting the results she

wants. She has a boyfriend that the family does not approve of. Although, she does not mention that she has a bad relationship with her parents, however she does not get social support from her parents.

*"That's actually a force of major (pause) stress in my life because, well, my ex-boyfriend was black...and I'm from Ohio and my parents like- it was just bad. They would freak out about it and stuff...so, basically pressuring me like to break up with him."*

*"I don't have parents that- they don't really care...they don't really even know anything about swimming anyways...they don't really know if I do good or not."*

An interesting discussion concerning how need satisfaction will generate well being that in turn will provide the athlete with a better resource to handle hardship. Or, the social support she gets allows her to foster a better quality of motivation that in turn allows for coping with hardship. However, if the athlete does not get the needs satisfied, the impact of hardship may prove harder to handle. The findings suggest that particular aspects of the social environment may be salient for fostering abilities to handle hardships. Also, underlining the importance of perceived competence for the psychological and physical welfare female adolescents in elite sports. A research topic, which would be interesting to pursue is if there is a cultural difference in how they handle adversity, or experience the hardship. According to SDT, will the tenant of basic needs be universal across gender and culture. Chantal et al. (1996) argued that cultural aspects might be a limitation in their study on Bulgarian elite athletes. This should be investigated further.

Another meaning category harder to place is the topic of time. Although, there is some research on need satisfaction over time, the topic is less investigated. Time is interesting for two reasons. One is, how the athletes talk about the use of time and the other is the time perspective in respects to swimming. The meaning category time management refers to the way some athletes report investing a lot of time in the swimming. Although, participants in the high performing group also reported being exhausted, they are not dealing with issues of getting enough rest or the guilt of not following up on social obligations.

*"I don't know, I just don't have time to mentally like get caught up on schoolwork. And like have time to spend time with your friends- and like people other than the swim team."*

And some athletes report that they have been swimming since they were 6-7 years old, so for almost 16-17 years. Typically, every athlete will have ups and downs across a long swimming career. Is an athlete able to delay their need satisfaction, if there is a belief that the need would be fulfilled at a later point? The theory contest, that needs are universal, meaning across time and culture (Deci and Ryan, 2002). However, does this mean needs can be fulfilled in days, weeks, across a season or in a career? The issue of entrapment was discussed in a former section, under the need to show competence. The idea put forward, was the consequence of putting significant amounts of effort into swimming without getting anything back that are meaningful for the athletes. How do the athletes experience the transition from high school to college swimming? Is there a difference if you have a bad season as a freshmen year compared to, the last, senior year? How long can the athlete swim before getting the results that are expected?

*I would say that the motivation, was pretty high just because I knew like, Okay, this is the last time I'm gonna have to do this."*

The satisfaction of the basic need hypothesized to lead to a high quality form of motivation, effective functioning, enhanced performance and well-being (Standage and Ryan, 2012). Athletes having a more self-determined form of motivation may be better equipped to handle hardships, while an athlete in the low performing group will be more challenged by hardships, because they use more energy on fulfilling their needs. Furthermore, if an athlete is challenged by hardship how long can the athlete survive? Findings indicate that the individuals with low performance, group closer to burnout, had little energy left to handle hardships in the other areas as well as in swimming. However, this issue is not resolved and warrants further examination.

## Limitations of the study.

This study has some limitations. First, the sample size was somewhat small and questions were semi-structured. This will get specific answers in relation to the motivational theory, but yield some limitation to the interpretation in depth. Despite these limitations, the current investigation sheds light on differences in the experience of motivation over a season of swimming. Further, it underlines the importance of need satisfaction for well functioning athletes.

## Future directions

According to SDT, need satisfaction is universal across gender and culture. However, there have been some inconsistencies in the power of the three needs in predicting the various strength of motivation in SDT. When examining all three needs simultaneously the various forms of motivation have been somewhat inconsistent (Reinboth, Duda, & Ntoumanis, 2004; Amarose and Anderson-Butcher, 2007).

One finding suggests that in spite of not getting their need for autonomy, the athlete's do not lose their motivation. In light of this, how structure environments relate to need for autonomy should be investigated further. Therefore, studies should increasingly explore how the basic needs function together to facilitate the athlete's motivation, and attempting to clarify how the needs provide important theoretical information regarding determinates of motivation.

Future directions could further investigate social factors how different social factors affects motivation. Findings in this investigation require replication in other environments, and methodological sophistication would provide greater understanding into how we can produce environments that endorse high quality motivation and prevents burnout.

## 6. Conclusion and implications

Duda and Hall (2001) have argued that it is significant for other researchers to investigate models of motivation, which complement and combine existing knowledge. From a theoretical perspective the results of the present study suggest that Self-Determination Theory may be approached in the context of elite athletes. Specifically, the data suggest that coaches should look to emphasize and foster basic needs in their athletes if they want to facilitate self-determined forms of motivation and prevent burnout

Researchers have argued that motivation is a key component for elite athletes. Lower levels of motivation have been seen to be related to burnout. Findings in this investigation into female swimmers, demonstrated that Self-Determination Theory proved to be a helpful tool in understanding how participants in the over-performing and under-performing group experienced their motivation during the season. The literature suggests that to become an elite athlete or reach that level the individual has to be intrinsically motivated. Some researchers have found that elite level athletes can have a more external form of motivation at their level and function well, contrary to popular belief. The first findings in this paper suggested the same, although this investigation was not big enough to clearly conclude such a finding. This warrants further investigation. The second question posed was how athletes in their group had their needs satisfied in the season. Our hypothesis was that thriving athletes have a higher motivation, and therefore, their need satisfied. The low performing athletes have low motivation and therefore more challenges meeting their psychological needs. Findings suggested that the group that is over-performing had better resources to handle the challenges they meet at training and in their social life, while the low-performing group used their resources to keep up with the program and “put out fires” in their social life. Lastly, there was some interesting topic that started to surface in this investigation that could be researched further. Time seems to be a factor in the experience of their motivation. Another factor is the cultural context in which the investigation has taken place. There was a majority of non-American athletes in the high performance group than in the low performing group and it is reasonable to ask the question if this matters in the way the athletes perceive their motivation.

There is an inclination to find ways to inform and encourage coaches to exhibit behaviors that will help fulfill the athlete's need for competence, autonomy and relatedness to increase self-determined motivation, in fostering athlete wellbeing and counteracting burnout. The findings suggest that particular aspects of the social environment may be salient for fostering particular basic needs. Also, we underline the importance of perceived competence for the psychological and physical welfare for young female adults in elite sports.



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<http://www.etikkom.no/no/FBIB/Introduksjon/Innforing-i-forskningsetikk/Humaniora-samfunnsfag-juss-og-teologi/>

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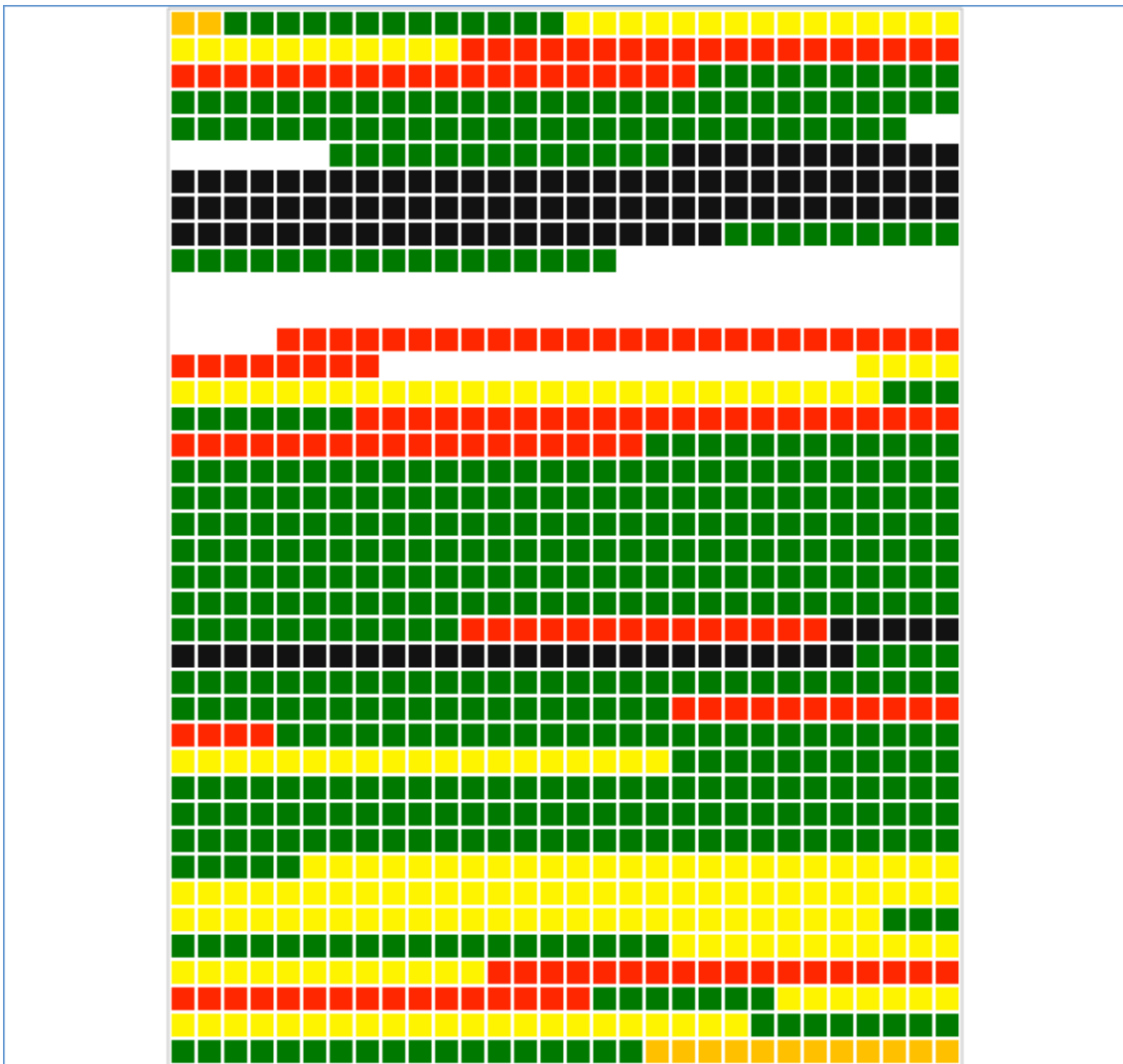




## Appendix 2.

### MAXQDA Coding matrix, Laura

*Laura* is the youngest in her freshmen year. She studies business accounting. She is the only swimmer that lives in a dorm (during the time of the interview) and shares a room with a swimmer. She dates an athlete, but he is not a swimmer. She is the only girl in the high-functioning group that is American.



### Appendix 3.

#### MAXQDA Coding matrix, Gwen

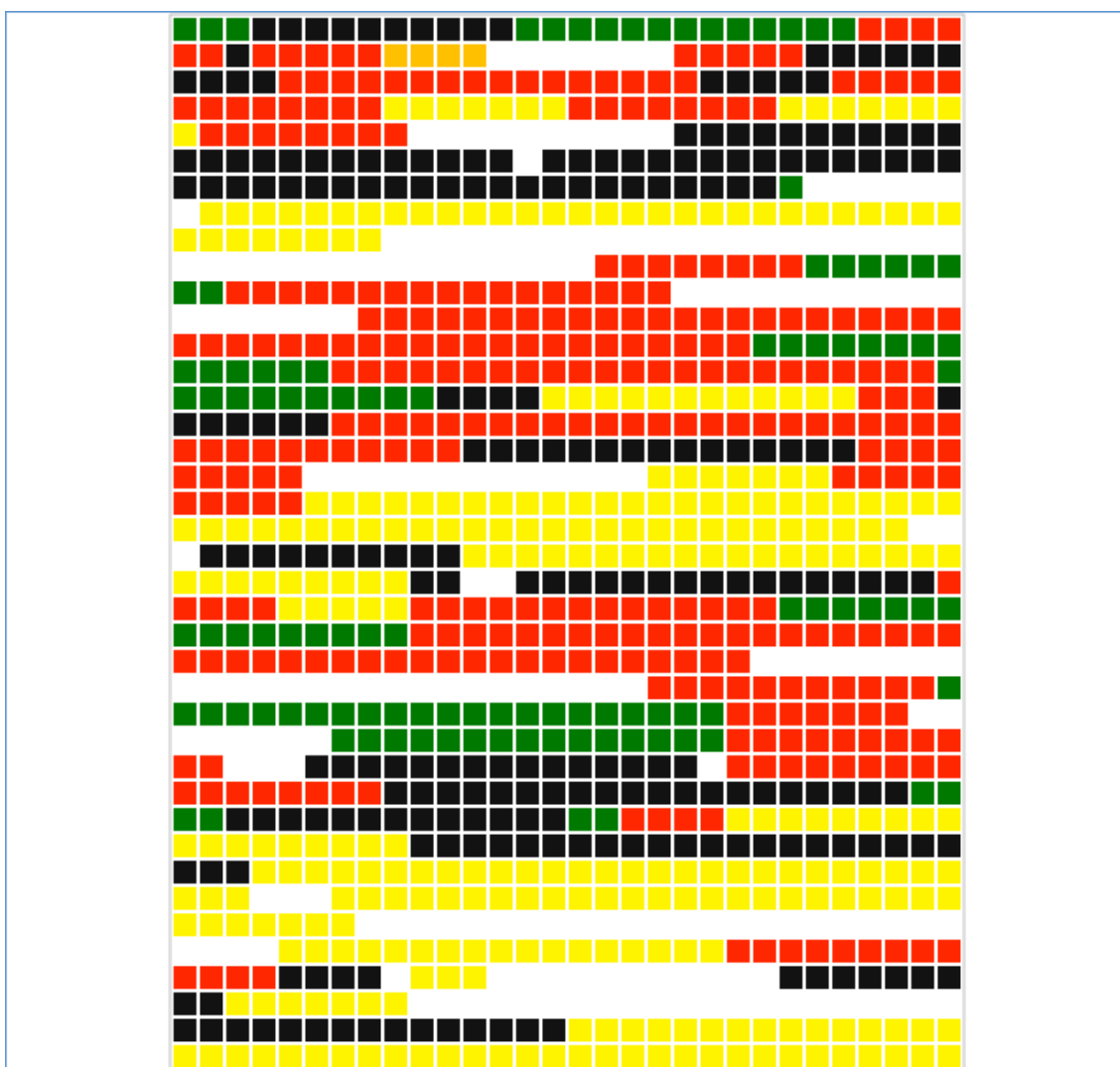
*Gwen* is a sophomore. She studies business, and just got into supply chain management. She lives with a teammate. Being an international student, she had some problems adapting to the American school system and culture, but on the other hand this spurred onto gaining a relatively high share of international friends.



## Appendix 4.

### MAXQDA Coding matrix, Daphne

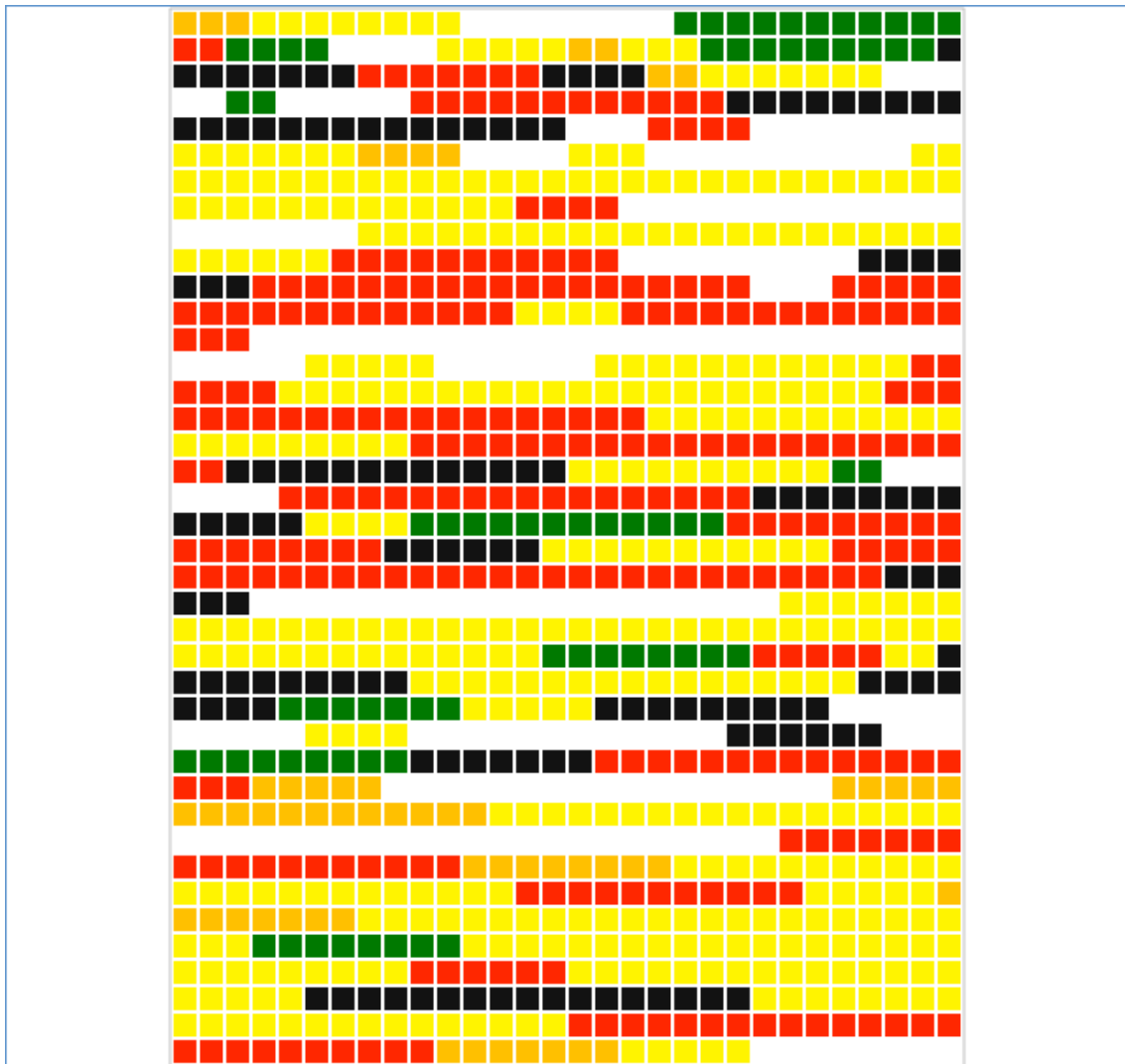
*Daphne* is a junior and studies finance. She just moved in with a swimmer from the team, after living in an apartment with other swimmers. Her season has been challenged by an injury.



## Appendix 5.

### MAXQDA Coding matrix, Kimberly

*Kimberly* is a senior and is the oldest in our sample. She is a double major in kinesiology and psychology. She lives with a course mate in an apartment. This was her last year competing in swimming.



## Appendix 6.

### Interview Guide – Overtraining Study

- **Hi, I'm here to talk about your season and the different factors that may have influenced your performance/experience.**
  - **Feel free to add anything.**
  - **There are no right or wrong answers; we're just trying to get a "feel" for how your collegiate season went and the different factors that may have influenced your performance.**
  - **Rest assured that everything that you say will be kept confidential; nobody will know that you've said something in particular.**
    - **So, if we present any of the data, we will protect your confidentiality. For example, that means that nobody will be able to later figure out who said what in particular or that it was a male or female that said something in particular.**
  - **Your participation is voluntary, and if for some reason you want to stop the discussion at some point, you can do that.**

#### School:

1. **Please give me a brief description of:**
  - a. **What year you are in school.**
  - b. **What you are studying.**
  - c. **What your goals are in school.**
  - d. **What expectations you have and what you want to get out of your studies.**
2. **Looking back at the season since September, how would you describe your workload at school?**
3. **What were your expected grades for the year and how does it match up with how it's gone so far?**

#### Swimming, in general:

4. **In general, how did your season go?**
  - a. **How do you compare this season to:**
    - i. **Last year?**
    - ii. **Expectations before the season started?**

*(Pay particular attention to this first part and go back to what they have said later on for further clarification)*

5. **Okay, let's talk about some stuff besides school and swimming. How would you describe your living situation? (Where are you living and whom are you living with?)**

- a. **How has that been since September?**
  - i. **Have there been any changes?**
  - ii. **Have there been any hardships?**
  - iii. **Is it different, better, than last season?**
- b. **Has your living situation ever had an impact on your school or swimming this past year?**

## Nutrition

6. **How's your dining situation?**
  - a. **Do you cook for yourself, or do other people cook for you?**
  - b. **Do you buy your own food or does someone else do that for you?**
  - c. **Do you use a training table to pick what you're going to eat and when do you go? If no, would you have liked to have a training table?**
  - d. **What do you typically eat? (*School days & weekends*)**  
(*Is what the swimmer eating affecting swimming and how much control/knowledge do he/she has of the appropriate nutrition?*)

## Social environment

7. **Who are the people that you spend a lot of time with? (Significant others, family, friends, coaches, etc.)**
  - a. **How are your relationships with them? (New boyfriend/girlfriend, break-ups during the year, etc.)**
  - b. **How are you still dealing with those issues? (Get at control issues and sources of stress- did you break up with the person or did they break up with you, etc.)**

## Illnesses and Injuries

8. **Here, we're trying to get an overview of different aspects of your life that could potentially have an impact on your swimming performance and general well being. Have you had any illnesses or injuries since September?**

*If the athlete was injured:*

- a. **How did you get injured?**
- b. **Did the illnesses/injuries impact you or your training? For how long?**
- c. **Do you have any complaints regarding the medical treatment that you received? How was your treatment?**
- d. **Afterwards, do you think that you pushed yourself too hard or not hard enough when you came back?**

## Training

9. **Thinking back on everything that has happened since September, how do you feel that your training went?**
- When the coach asks you to swim at a certain level (intensity or HR: 1,2,3,4), do you swim at that level or do you feel that the slower or faster athletes swimming around you influence your pace?**
  - Did you feel like you were “trying to keep up?” with the other swimmers? Or maybe you felt like you were “going through the motions?”**
  - How would you describe the training? (Was the training too difficult or too easy?)**

## Relationship with the coach

10. **Which training group did you train with this year? (Who was your coach?)**
- How was your training?**
  - How was your relationship with your coach?**
    - Did the two of you have good communication?**
    - How would you describe his coaching style?**
    - What was the atmosphere like in the group with that coach?**
      - Did you have individualized attention?**
      - Do you feel that you were able to work on your weaknesses?**
      - Did he seem that he was only concerned with getting “results?”**
      - Do you feel that everyone received the same amount of attention?**
      - Are you satisfied with the amount of attention that you received?**
      - Did you feel that you had to go out of your way to get the attention that you deserved?**
      - Do you feel that your coach was fair?**
      - Were his actions consistent with the feedback that he has given you?**
      - Did you do 100% of what the coach told you to do or did you adapt his comments to what was “right” for you?**

*(We're looking for a description of the coaching style and the climate on the team. We would like to know whether they had “blind faith” or felt that they had some control over the training and/or was using the coach as a “tool.” We're looking for how much responsibility that they have given to the coach to train in the right way.)*

11. **How satisfied are you with the two tapering periods that you've had this year?**
- The tapering period before Texas Invite?**
  - The tapering period before Pac-10 & NCAA's?**
    - Did you taper at the right time?**
    - Did the tapering work? Were you fully rested when you competed?**

- iii. Did the tapering lead to you to peak the way that you had expected to peak?

## Rest

12. How important was it to you to rest during the course of the season?
  - a. Were you conscious of when you needed to rest?
  - b. Was recovery as important to you as the physical training?
  - c. What do you do to rest?
    - i. Physical?
    - ii. Mental?
    - iii. Social?
    - iv. Emotional?
  - d. Were there any obstacles that prevented you from resting?

## Traveling

13. How was the traveling this year?
  - a. How much traveling did you do?
  - b. How big of an impact was it not being able to sleep in your own bed while you were traveling?
  - c. Did you miss meals while traveling?
  
14. What did you do for Christmas Break?
  - a. Did you go home?
  - b. Did you need to travel during this time? If so, did you fly or drive?
  - c. Did you train while you were away?
    - i. If so, how much did you train?
    - ii. What did you do?
  - d. Did you see a lot of your family and/or friends while you were away?
    - i. Did you party a lot?
    - ii. Was the time “crazy”? Did you feel like a chicken with his head cut off?
  - e. Did you actually rest, or did you have to see a lot of people?
  - f. Did you have to do a lot of other things while you were on break?
  - g. Did you feel well rested after the break? Physically? Mentally?

## Motivation

15. How would you compare this year to prior years of your swimming career?  
(Focus on motivation)
  - a. Did you do anything differently this year than you had done in prior years?
  - b. What (*driving force*) makes you want to get up in the morning and go to practice? Has this changed throughout your career?



- c. **How was your motivation level at the end of the collegiate season?  
How is it now?**
- d. **Do you feel that you were as motivated, or more motivated, this year  
as in prior years?**
- e. **What is your own personal goal for swimming? Is it winning or is it  
performance based?**

## Conclusion

- 16. How would you sum up this year?**
- 17. What do you see your future in swimming like?**

*Thank you for your time!*

