Youth Development through Street-Sports:

An Exploration of the Relationship between Learning Styles and Fear of Failure

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Abstract

Research has found that being involved with sports can be physically, psychologically and socially beneficial, especially during youth's developmental years (Fraser-Thomas, Cote, & Deakin, 2005). Many youth programs advocate sporting activities as a way to foster positive youth development. Within this body of research, the issues of fear of failure and perfectionism have been considered as factors that affect a person's motivation to continue participating in sport (Conroy, 2001). To date, fear of failure and perfectionism have typically been explored in achievement settings, and only in relation to competitive sports (e.g. Dunn, Gotwals, Dunn, & Syrotuik, 2006; Flett & Hewitt, 2005; Sagar, Lavallee, & Spray, 2007). The present research explored these constructs within a street-sports environment, where achievement and success is not a fundamental aspect. Furthermore, because of the unique learning environment that street-sports provide, this study examined whether a relationship existed between learning styles, fear of failure and perfectionism. Participants included youth – aged 10 to 18 years old – who participated in street-sports as their main form of physical activity. The street-sports included in this study were skateboarding, BMX and parkour. Self-report questionnaires were used to measure learning style, fears of failing and perfectionism scores. Correlation and regression analyses were employed to examine existing relationships between the three constructs. Results demonstrated that a relationship did exist between perfectionism and fear of failure, although this was low in comparison to prior research in competitive sports. Confirming previous findings, concern over mistakes was the aspect of perfectionism that showed the strongest relationship to fear of failure. Additionally, the results indicated that street-sport participants were collaborative learners and the more collaborative their learning style, the less likely they were to experience fear of failure. This thesis presents a proposition for better inclusion of street-sports within quantitative studies, particularly with interest to youth development.

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Table of Contents

List of Tables

List of Figures

1. Introduction

Street-sports is a term referred to for sports that are practiced in urban environments (Rinehart, 2000), without formal coaching, and being non-competitive by nature (although competition does still exist amongst elite athletes). As an alternative to the more dominant traditional sports that include the likes of netball, rugby and basketball, street-sports offer an opportunity for sport involvement in communities where there may be a lack of coaches and facilities in which to practice, limited or no funding available for sporting activities, or inabilities to make commitment obligations because of location (Salome & van Bottenburg, 2012). Consequently, street-sport activities tend to attract a more diverse range of individuals. Through the appealing portrayal in social media, street-sports such as skateboarding, BMX and parkour are becoming increasingly popular, and we are beginning to see a shift from the formal to more informal activities that are not organised, but instead are spontaneous in nature (Gilchrist & Wheaton, 2011).

Despite the street-sports becoming a more favourable form of physical activity, they are still somewhat neglected within the sports literature, and even more so in regards to youth. Likewise, there has been a tendency to overlook street-sports when developing youth programs. Such programs aim to highlight the importance of sport participation for positive youth development (e.g. Danish, Forneris, Hodge, & Heke, 2004; Fraser-Thomas, Cote, & Deakin, 2005; Hansen, Larson, & Dworkin, 2003), yet these programs are still inclined to promote traditional sports and remain indifferent about alternative street-sports. For instance, Kirk (2005) recommends that developmental programs for youth should include 'multisport', thereby promoting a variety of physical activities during the important 'sampling years' (around the ages of 7-12 years). However within his argument of multisport inclusion, only sports that have an element of competition, are coach-athlete focused or involve some form of formal teaching are included. Consequently, sporting behaviours remain predominantly researched within the environment of competitive sports.

One concept that has more recently been of interest to sports researchers is fear of failure – defined as the motivation to avoid failure in order to reduce the likelihood of experiencing negative consequences associated with failing (Birney, Burdick, & Teevan, as cited in Conroy, 2001). Fear of failure has broadly been researched in achievement settings (e.g. Beery, 1975; Caraway, Tucker, Reinke, & Hall, 2003), where success and failure are salient features. In the sports context, this concept is studied in competitive settings, essentially because of the close link it has with competitive anxiety (Conroy, 2001; Conroy & Elliot, 2004; Conroy, Kaye, & Fifer, 2007; Conroy, Poczwardowski, & Henschen, 2001; Conroy, Willow, & Metzler, 2002; Lazarus, 2000; Sagar, Lavallee, & Spray, 2007; Sagar & Stoeber, 2009). These researchers theorise that fear of failure occurs prior to competition due to anticipatory beliefs that an individual will experience shame and embarrassment if they do happen to fail. The issues that are related with fear of failure are of significant social concern, particularly amongst youth. This is a vulnerable period in a person's life, where adverse consequences that are associated with fear of failure can cause emotional set-backs that affect their development, and ultimately lead to negative changes in their overall well-being (Martin & Marsh, 2003). Therefore, sports may not have the expected positive influence on youth development if this is a setting where fear of failure is experienced.

Fear of failure has been suggested as one of many reasons for youth drop-out rates in sport (Conroy, 2001). Additionally, when Le Menestrel and Perkins (2007) asked youth their reasoning for dropping out of sport participation, a dislike towards coaches and 'too much competition' were the most commonly reported. They concluded from their findings that the competitive nature of sports can at times be detrimental to youth's well-being, but that this is also heavily reliant on the quality of experience for each individual. Exploring this idea further, researchers studied the effects of a competitive versus cooperative learning based program with groups of school children (Dyson, Griffin, & Hastie, 2004; Marsh & Peart, 1988; Vallerand & Losier, 1999). They found that cooperative based learning programs were more beneficial for high school students than competitive programs, especially in regards to student's self-concept. However, these types of studies fail to take into account individual differences when it comes to learning

styles. Moreover, studies that have investigated the relationship between sport participation and fear of failure have also neglected to examine whether participants had specific preferences for learning, prior to engaging in sport. A person's individual learning style may be an important factor in such studies, as it could determine personal experiences within specific environments.

The physical, psychological and social benefits of sport participation have been well documented in the literature (Bailey, Cope, & Pearce, 2013; Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004; Danish et al., 2004; Fraser-Thomas et al., 2005; Gould, & Carson, 2008). In fact, a significant focal point for youth development programs is to encourage psychological well-being in sport participation. Yet one problem that still arises is the vulnerability that some individuals have towards the negative emotional effects of competition. In the environment of competitive sports, where success is a primary focus, excessive pressure to win and the importance placed on a person's ability are factors that can exacerbate fears of failing (Fraser-Thomas et al., 2005). Rather than simply seeking to change the way in which traditional sports are taught, researchers need to look at alternative sports and the interactions between possible non-competitive environments and fear of failure.

The first aim of the current study is to determine whether similar relationships that have previously been shown between fear of failure and perfectionism, exist in a street-sport sample. The second aim is to examine whether street-sport participants prefer a particular learning style, and whether this has any effect on perfectionism and fear of failure. The methodology employed for this particular study was correlation and regression analysis, which determine if and to what extent a relationship exists between the concepts. The research method will be discussed in more detail, as well as an overview of the measurements used for this study, in chapter 3 of this thesis. The results of these data analyses will be presented in chapter 4, and finally chapter 5 will discuss the results in terms of the implications for youth development through street-sports, as well as the limitations of this study, and future recommendations.

A number of terms used in this study have been defined by the researcher. Firstly, the term 'street-sports' is necessary to define, due to the meaning that it holds for many participants of these sports. It is important to note that participants in this study have often expressed their aversion to the term 'sports', as they feel that this implies formal competition, as well as undermines identity and attitudes that are adopted through the practice of their activity. The intention of using the term 'street-sports' is simply to explain alternative means to the more traditional sports, which are generally practiced on the streets rather than in any formal arena. The term embodies alternative sporting values that are spontaneous in nature and non-competitive. Within the academic literature, these activities are often referred to as 'lifestyle' 'alternative' 'extreme' 'alternative' or 'action' sports (e.g. Beal, 1995; Stapleton & Terrio, 2012; Wheaton & Beal, 2003). Three sports in particular will be included in this study: skateboarding, BMX and parkour. Parkour, or free-running as it is sometimes referred, is a type of movement that is an expression of creativity (Stapleton & Terrio, 2012). It combines gymnastics movements, practiced within urban environments, using spontaneity and improvisation to move through urban environments (Saville, 2008). For the dominant traditional sports, the term 'competitive sports' will be used to encompass organised sports that are governed by rules and involving some form of competition. Finally, it is also important to distinguish what is meant by 'learning styles'. Learning style is a term often used to describe a person's application of cognitive processes in learning situations (Cassidy, 2004). However in the current study, learning style refers to an optional preference of how an individual engages in learning, rather than an automatic process.

2. Literature Review

2.1. Street-Sports

Street-sports have been typically identified with lower socio-economic communities (Theeboom, Haudenhuyse and De Knop, 2010), risk-seekers or 'daredevils' (Salome & van Bottenburg, 2012), and a resistance to social norms (Beal, 1995). The repercussions of such negative stereotyping are that a lack of encouragement to participate in street-sports exists, and the emphasis is to instead participate in the more traditional competitive sports. Evidently, youth may possibly be deprived of beneficial experiences from alternative sports.

2.1.1. Defining Street-Sports

For many decades, outsiders of street-sports have been under the false assumption that participants are merely non-conformers of society, who show deviant behaviours and cause conflict (Salome & van Bottenburg, 2012). With the intention of offering a more exploratory approach, a number of researchers have utilised the qualitative methodology in order to examine the perspectives of experiences and meaning behind the participation of street-sports. Although street-sport participants are aware of the stereotyping of their sub-cultural lifestyle, they also acknowledge this is not the way in which they wish to be typecast. One skateboarding youth's letter to a newspaper editor captures the self-definition that many recognise and acknowledge of themselves:

> Skaters have a completely different culture from the norms of the world's society. We dress differently, we have our own language, use our own slang, and live by our own rules. People feel threatened by foreign attitudes. Everyone has his own views on different types of society and their own stereotypes. . . . Please stop viewing us as a totally negative race of people. The few people who have come up and watched us skate and spoken to us know that we are nice, educated, and intelligent (Maeda, 1991, p. 17).

Beal (1995), is known as one of the first explorative researchers in the skateboarding scene, who has used observations, participant-observation reports and semi-structured interviews to illustrate the subculture of skateboarding. Being a skater herself, Beal was able to build rapports with other skateboarders that in turn fostered a trust, enabling her to collect rich data. Likewise, Clegg and Butryn (2012) used a phenomenological approach, whereby participants provided in-depth information of their experiences of parkour. Because these researchers wanted to uncover detailed and informative material, they targeted sample groups of participants who were 18 years and older. As stated quite openly in her conclusion of observations, Beal (1995) reported that it was mostly adolescents and amateurs, who were seen to be on the street practicing such sports. Thus, it is evident that there is much needed exploration within a younger age group in the literature of street-sports.

Nonetheless, what has been uncovered from such phenomenological studies, is that the absence of formality in street-sports, merely provides an environment where participants are at liberty to explore and express themselves, without the often-debilitating pressures that come with competitive sports (Gilchrist & Wheaton, 2011). Participant descriptions revealed that street-sports seem more like performance art than a sport, stressing the freedom of self-expression, the cooperative nature of perfecting tricks, and a preference for collective practice over competition. One participant reflected on their experience with those that practiced street-sports, stating that they were "… more reflective than their average peers." (Beal, 1996, p. 207), and typical practice of a parkour session sees tracers spending copious amounts of time before and after jam sessions discussing their emotional and psychological needs, and what they perceive to be the sociocultural virtues of parkour (Atkinson, 2009).

Sociological research into street-sports has often focused on the 'insider's story', exploring self-reported accounts from the committed participant (Wheaton, 2010). The researcher themselves play a large role in the way in which street-sports are expressed, as many researchers themselves have stipulated their motivation

stemming from their own participation (e.g. Atkinson, 2009; Edwards & Corte, 2010; Nelson, 2010; Saville, 2008; Wheaton, 2010), and therefore will naturally tend toward a particular bias. Predominantly researched through a qualitative methodological approach, the main focus has been on how participants construct identities and the experiences of the subcultures within street-sports (Saloome & van Bottenburg, 2012). Attempts are made to further explain the concept of the lifestyle that surrounds each of these sports, by using sub-cultural theoretical approaches (e.g. Thorpe & Wheaton, 2011). What has been revealed thus far from this methodological approach, is that street-sports are fundamentally about engaging in the activity in a holistic way (Thorpe, 2007; Tomlinson, Ravenscroft, Wheaton, & Gilchrist, 2005), while achievement, competition, hierarchy and exclusion, tend to be characteristic of the more traditional competitive sports (Thorpe, 2007).

2.1.2. Participation in Street-Sports

Research thus far has identified the most common motives to participate in sport is to develop physical competency or improve skills; to have fun, and to create social competency through peer relations (Danish et al., 2004; Hansen et al, 2003; Perkins & Noam, 2007). Thus, if sports are to appeal to youth, they must include factors that allow the individual to reach his or her personal goals, and therefore derive satisfaction from doing so. It must be up to the individual and not to teachers, coaches or parents, to decide what they feel comfortable pursuing, and we cannot maintain assumptions that mainstream sporting activities (or competitive sports), will suit all. It is also assumed that any life lessons that are to be learned through sport participation are done so via the teachings of elders in the form of coaches or trainers. Instead, we may be able to look at what can be taught from peers, older youth, and even the individual themselves, through self-taught learning. In any manner, as youth grow older their receptivity towards adults diminishes (Petersen & Hamburg, 1986) and learning is accomplished through one's own initiative. Dependent on the individual, the same structure will

not appeal to all participants. For instance, one parkour participant reveals their unique motivation as being a "pursuit of freedom".

> Society looks upon what we do as a bad thing, but they built up this concreted jungle around us. Concrete, roofs, whatever. And we're told we can only walk in a certain way, we can only move in a certain way. Mankind struggled for centuries to be free. The pursuit of parkour for us is a pursuit of freedom (Daskalaki, Stara & Imas, 2008, p. 56).

This type of physical activity has no set plays and is not determined by a set of governing rules. There is room for creativity and a freedom to learn in a way that further develops the individual.

2.1.3. The Environment of Street-Sports

There is a unique subculture that can be seen within the environment of street-sports. It is one that places importance on spontaneous creativity and freedom. The preference is not to compete at an elite level or be overly concerned with competition, and because of this, there is a mentality that no one ever loses when they do street-sports (Beal, 1995). Participants are not inclined to be focused on having to be better than others, or having to beat any of their peers. Even when participating in contests, the attitude of 'doing the best performance that the individual is capable of' is at the forefront. In an interview with Beal (1996), one skater revealed that although the subculture of skate parks does involve a certain hierarchy, this is more of a social hierarchy and not determined through competition. By observing other skaters, especially the likes of the more experienced ones, it becomes obvious who is the most skilled and creative. Yet respect is not gained from lording this talent over others, and when less experienced skaters want to learn what they observe good skaters doing, it is expected that they will help each other out. The first-hand narratives from skateboard participants in Beal's (1995) study depict an environment that rejects competition and instead exemplifies learning skills through cooperation and

encouragement. Because there is no official coach or trainer within street-sports, the only way to learn skills is through self-instruction, observation or peer-learning. It would be reasonable to presume then, that learning in this environment is more efficient through a cooperative approach, although this may not be specific to just street-sports environments.

2.2. Learning Styles

Learning styles have been broadly described as cognitive, physiological and affective stable traits that identify how an individual perceives, responds to, and interacts with their learning environment (Cassidy, 2004; & Reid, 1987). Operationalising learning styles has been said to be highly problematic, but also necessary (Cassidy, 2004). Learning styles have been considered both as a stable trait, and as a 'state-trait' that changes over time within different contexts. Generally, learning styles are described as preferring one method of teaching over another (independent versus dependent learning for instance), and are portrayed as the outer most layer that is more susceptible to influence (Cassidy, 2004). By this definition, a learning style appears to be less stable. It is also important to note that learning styles have been theorised as a preferred method of learning that results from a person's more stable personality traits (Fallen, 2006). Identifying learning preference is an important factor because a preferred learning style is said to have a significant impact on performance and achievement of a learning outcome (Black & Deci, 2000).

Self-controlled learners - defined as a learner having control over a practice situation as well as being a more active participant in their own learning (Bund & Wiemeyer, 2004) – have been found to seek out places that they feel they are most likely to learn better in, and to use strategies that are possibly more suited to their individual needs. They are also likely to select advice or information, or to create environments, which they believe to be optimal for their learning. These strategies may therefore be more suited to their own individual needs and not congruent with the strategies set out by a teacher or coach for instance. The benefits of self-

controlled learning are seen in the process of self-controlled practice, rather than being restricted only to specific aspects.

Bund and Wiemeyer (2004) looked into self-controlled learning, investigating whether a learning situation, preferred by the learner rather than not preferred, enhanced self-efficacy beliefs and motor learning. Participants were aged 20-32 and were divided into 4 groups; 2 self-control groups; one using their preferred learning style, one group a non-preferred learning style, and the other two groups with no control. It was determined that self-controlled learners were significantly higher scoring on self-efficacy than those with no influence over their learning. Those learners that were able to control a part of the practice regimen, regardless of whether this was preferred or non-preferred, performed better in movement tasks than those who were unable to have any control over their practice regime. This study highlights the importance of how learning preferences can enhance self-efficacy, which in turn can lead to increased motivation to participate in sporting activities.

2.2.1. Developing and Identifying Learning Styles

The concept of learning can be one that elicits images of classrooms, teachers, homework, coaches, training sessions, and exercises. Yet to see learning as it is defined; the act of acquiring new or modifying existing knowledge, behaviours, preferences, value and skills (Wittrock, 1974) is to realise that in fact learning is an integral part of everyday lives. Thus far, research on learning has tended toward identifying individuals learning style based on scores of IQ (intelligence quotient), socioeconomic status or ethnicity, rather than more functional characteristics such as their cognitive style, their motivation or even temperament (Reid, 1987). The research that has followed on from this, approaches the phenomenon of learning with the idea that learning styles are more influenced by specific environmental demands, rather than predispositions of stable traits (Struyven, Dochy, Janssens and Gielen, 2006). Perhaps these functional characteristics interacting with specific environments are the very concepts that influence learning.

Through direct experience, a person will face either rewarding or punishing consequences, and it is during this process that they will either continue with successful modes of behaviour or discard ineffectual ones (Bandura, 1971). However, ceasing practice of all behaviours that are deemed ineffectual could mean that an individual stops pursuing a new skill once they recognise their initial attempts have failed. In this sense, higher cognitive processes must be used in order to determine whether failure was a consequence of an inability, or whether adaptive behaviour could instead be exercised in order to attain the desired result (Luna, Garver, Urban, Lazar, & Sweeney, 2004). Consequently, cognitive skills of self-awareness are encouraged, to determine one's own capacity – an aspect of learning that is important in developing the capability to self-regulate (Zimmerman, 2002). Rather than merely being a reaction to teaching, self-regulated learning is engaged in, in a proactive way. This differs from the traditional methods that regarded learning as a formal discipline that was dependent on an individual's intelligence (Zimmerman, 2002). Any failure to learn by these standards was thought to be a direct reflection of limited intelligence. It is now more evident that learning occurs individually, and is not fixed across all settings (Zimmerman, Bandura, & Martinez-Pons, 1992). As suggested by Fallen (2006), learning styles that incorporate creativity and improvisation would help to captivate minority learners. Generally, this type of divergent thinking can be discouraged in organised settings, where teachers or coaches expect learners to adhere to a particular style (Cassidy, 2004).

Essentially, authors such as Dewey, Thorndike and Montessori (as cited in Zimmerman, 2002), proposed a number of suggestions on how the educational curriculum could be adapted in order to accommodate for more diverse learners. Their suggestions included the introduction of perceptual-motor learning tasks, with the intention of broadening coursework in order to include training in practical skills as well. These diverse reformers recommended that the curriculum, in American schools especially, remained too narrow-minded, and were not flexibly accommodating the needs of all youth (Dewey et al., as cited in Zimmerman, 2000). This prompted an exploration of research into *social cognition* and *metacognition* – an individual's knowledge and awareness of their thinking, as

well as knowing their personal limits and adapting accordingly (Schunk, 1989; & Zimmerman, 1989). Both Schunk and Zimmerman were interested in social influences on youth's development of self-regulation, and extended their studies to include the effects on self-monitoring and goal setting as an outcome from teacher modelling and instruction on the students. As the concept of social cognitive theory states, people do not learn behaviours merely through the success or failing of initial trial, but rather are dependent on the replication of modelling the actions of others (Bandura, 1971).

2.2.2. Motivation for learning

Intrinsic motivation is described by Ryan and Deci (2000) as being the "prototypic manifestation of the human tendency toward learning and creativity". It is central to the regulation of biological, cognitive and social processes, and is important because it is a key factor that produces behaviour. For this reason, motivation to learn is an issue of concern to sports researchers. Without motivation, people tend to withdraw from a physical activity, and cease to develop further skills that are gained through sport participation. People are either internally motivated because an activity holds certain value for them, or because of external coercion – continuing an activity because of pressures from the likes of coaches, teachers and parents (Elliot, 1999).

It is generally those who are internally motivated that report having interest, excitement and confidence in their activity (Deci & Ryan, 1991). These factors enhance performance, persistence and creativity (Ryan & Deci, 2000), as well as general well-being (Black & Deci, 2000). Furthermore, having interest, excitement and confidence are found to be further enhanced for internally motivated rather than externally coerced individuals, even when their perceived competence for an activity is equivalent (Ryan & Deci, 2000). Ryan and Deci (1991) propose that there are distinct types of motivation that have specific consequences for learning. For instance, those who had controlling parents relative to autonomy-supportive parents were less intrinsically motivated, were more likely to lose interest and

learned less effectively, especially in instances where learning required conceptual, creative processes (Deci and Ryan 1991; Deci & Ryan, 2000; Ryan & Deci, 2000).

2.2.3. Environmental Influences

Gould and Carson (2008) suggest that skills learned through the environment of sport can only be determined as 'life skills' if they are able to be transferred into other contexts of life. They argue that a social-emotional competency developed through sport is not actually a life skill unless that skill can be transferred to other settings as well. However, in order to develop such skills, the individual needs to first find an environment that they feel comfortable or confident in, in order to develop these skills in the first place. Therefore, having at least one environment that they can develop such skills would still be beneficial.

In the traditional organised sports environment, generally umpires or referees are required in order to discipline players in a way that controls play (Sage, 1998). However, in the environment of street-sports, participants are able to be self-regulating, which in turn encourages them to develop an implicit understanding of the sub-cultural expectations for how to participate in the given environment (Beal, 1996). Furthermore, these types of sports are not gender specific, as is seen in many competitive sports where males are matched against males and females against females (Thorpe, 2014). Participants of street-sports are able to practice with friends, family members, peers from both sexes and of varying ages as well as ability level. This encourages a learning environment fruitful with diversity and variation. It also offers an empowered learning experience for youth from different socio-economic and cultural backgrounds, by encouraging self-expression, creativity and a distinct set of social skills.

2.3. Fear of Failure

2.3.1. Developing Fear

Fear refers to a normal, emotional reaction to either a real or imagined threat (Gullone & King, 1993). It is a cognitively-developed conditioning to antecedents in the environment that lead to particular consequences in behaviour. It includes feelings of apprehension or being scared, and is a direct reaction to threat of punishment, defined as "… a stimulus which one will work to terminate, escape, or avoid" (Sagar, Lavallee, & Spray, 2007). In the practice of street-sports, there is a general assumption that participants must be pathologically fearless, or at least have an unhealthy relationship to fear (Brymer & Schweitzer, 2012). Evidently exploring the relationship between fear and risky sports has been studied in a way that focuses on the negative aspects. For instance, the conclusions Hunt (1995; & 1996) drew from his studies on extreme sports participants, suggested that participants of these sports lacked an appropriate sense of fear, and had an inappropriate love for pain, that encouraged them to consent to unacceptable levels of fear.

Skateboarding and parkour have often been included in the category of 'extreme sports' or 'risky sports' (Willig, 2008). These sports bear considerable risk of serious physical injury, and therefore involve an element of having to overcome fear in order to be practiced. A recent emergence in the literature (but still not as commonly reported) is the way in which participation in these sports can create a constructive interaction with fear, and how this may have a positive influence on youth development. Parkour for instance, has been described as an activity in which participants are motivated by different types of fear, and encouraged to engage with their emotions in a way that embodies the physical, mental and environmental factors (e.g. Gilchrist & Wheaton, 2011; Kidder, 2013; Saville, 2008). Through such practices, an individual will become more self-aware and become more connected with their own limitations. Via qualitative research, Saville (2008) has described parkour as a sport in which participants see fear as a "… lived and mobile process [that] can be considered, cultivated and sometimes

even enjoyed." (p. 893). It is through these types of sports, that another perspective of fear is beginning to emerge, as being a healthy and productive experience.

From both a positive and negative perspective, it is evident that participants of risky sports are more likely to be confronted with challenges relating to fear (especially physical injury), than those participating in the more traditional competitive sports. Even though physical injuries are ubiquitous in competitive sports, the 'risk factor' is not as salient. Therefore, it could be expected that participants of parkour, BMX and skateboarding, are inclined to possess characteristics in line with 'fearlessness' (Brymer, 2011; Saville, 2008). However, given that there are many types of fear, it is unreasonable to assume that a decrease in fear of physical injury would transcend to all other types of fear as well. Moreover, fear types are associated with different stages of personal development. For instance, children aged 11 to 14 report highest levels of fear in relation to criticism (Gullone & King, 1993). Younger children are more likely to fear situations or objects, which they believe they have little or no control over, or are vulnerable to (being kidnapped for instance). During adolescence, which is an age where academic achievement is more significant and the future is important, fears of criticism and evaluation become most evident, such as the fear of having to speak in front of an audience (Gullone, & King, 1993). Thus, the existence of any given fear could be influenced by the developmental stage that a person is at. Furthermore, the development of fear has been shown to be context specific (Hobin, Ji & Maren, 2006). This means that whilst risky sport participants may show fearless qualities in a sport-specific context, it cannot be ascertained that this will be the case in all other contexts as well. As these examples show, an individual's development of fear is contingent on a plethora of variables, and therefore needs to be researched with this in mind.

One aspect of fear that has gained attention across a range of disciplines in psychological research is 'fear of failure' (e.g. Bamber, 1974; Gullone, Cummins, & King, 1996; Ollendick, Yang, King, Dong & Akande, 1996). Fears that are experienced from failure are a result of aversive consequences that have been

either learned through communication, observation, or experience (Conroy et al., 2001). The core factor identified in fear of failure is the possibility of nonattainment of an achievement standard (Conroy et al, 2001). Birney and colleagues (as cited in Sagar et al., 2007) argue that by this definition, failure alone would cause a fearful reaction. Rather, if the consequences of failure are perceived as aversive, then these will be the contributing factors that cause the fearful reaction. Researchers (Covington & Müeller, 2001; Singh, 1992) have found that children with higher fears of failing are more likely to demonstrate problem behaviours and negative side-effects. When compared to children with low fears of failing, children scoring high in fear of failure are more likely to be attention-seeking and have greater anxiety (Singh, 1992). They are also likely to demonstrate a decrease in academic performance, intrinsic motivation and overall wellbeing (Covington & Müeller, 2001). As Lazarus (1991) has suggested, appraisals for fear and anxiety are both about anticipating a threatening outcome. Due to this association with anxiety, the construct of fear of failure has typically been examined in settings where anxiety is generally observed. Accordingly, sports researchers have focused on the context of competitive sports in which to further explore fear of failure (Conroy & Metzler, 2004; Noblet & Gifford, 2002; Sagar & Stoeber, 2009). Given that skateboarding, BMX and parkour have all been associated with physical fear (Saville, 2008), it is important to extend the research on fear of failure to these types of sports as well.

2.3.2. Fear of Failure as a Motivating Factor in Sport

As it has been previously mentioned, experiences in sports during youth can foster positive development (Catalano et al., 2004; Danish et al., 2004; Fraser-Thomas et al., 2005; Larson, 2000). However, because sport has been traditionally centred on competition, it is also a setting that could have negative effects on development. Passer (1983) suggests that fear of failure comes from adolescents negative evaluations and threatening expectations about the sports environment. These elements are said to originate from developmental factors such as their history of competitive outcomes. The individual will develop a fear for judgement that comes

from being negatively evaluated by coaches or team-mates, which in turn leads to an apprehension in evaluative situations. Success in sports is generally followed by affection and approval from significant others (Sagar et al., 2007), and therefore the possibility of disapproval following failure could very well present as an emotional burden for youth. Subsequently, a fear towards failure may develop, based on the priority that is often placed on succeeding. When failure becomes apparent, frustration at the discrepancy between ideal performance standards and actual performance may be one of the immediate emotional consequences of fear of failure (Lazarus, 2000). As a long-term consequence, the result may very well be a diminished enthusiasm to participate, or withdrawal from participation altogether. These counter-productive behaviours are not initially meant as a detriment, but are instead adopted in order to protect a person's self-esteem (Lazarus, 2000).

Self-esteem and self-worth are important social psychological constructs of positive development. They have been conceptualised as influential predictors of certain outcomes such as performance and achievement (Conroy, 2004). Sagar and colleagues (2007) found that athlete's self-worth was associated with adequacy of performance and was contingent on accomplishments. Similar research in an academic setting showed that students who based self-worth on academic achievement were more likely to show resilience following failure if they were high in self-esteem (Caraway et al., 2003). Students with low self-esteem were more likely to disengage from the pursuit of achievement and experience more negative outcomes as a result of failure. Lazarus (2002) suggests that we do not always see negative thinking as being damaging and positive thinking as always facilitating performance, as this thinking is too simplistic. If one can maintain hope following a discouraging performance, then they certainly have a better chance of full utilization of resources being restored and not damaged. When consequential emotions of failure are turned into constructive striving, they are able to have positive effects on improvement.

Further research has shown that there is more to the concept of fear of failure than just negative emotional consequences. Conroy and Elliot (2004) found that not

only was fear of failure positively related to performance-avoidance goals, but to performance-approach goals as well. This finding indicates how fear of failure can act as a motivator, whereby fearing the emotional burden that occurs after failure can drive a person to succeed in order to avoid such negative consequences (Martin & Marsh, 2003). This theoretical approach has been further demonstrated in studies involving team-sports. Playing in team sports encourages individuals to gain acceptance from their teammates, and therefore they will try to perform consistently well to avoid letting their teammates down (Carron, Colman, & Stevens, 2002; Spink, Nickel, Wilson & Odnokon, 2005; Turman, 2003). Team members are also more likely to experience greater pressure due to teammates expectations and continuous scrutiny. Carron and colleagues (2002) discovered that participants of team sports reported being motivated to perform consistently well in order to gain their teammates acceptance and approval, and to feel as though they were an integral part of the team. Team participants have been found to experience shame and embarrassment, more so than individual athletes because they feel their performance is regularly evaluated by coaches, parents, peers, judges and the public (Sagar & Jowett, 2012). These studies illustrate the importance of researching fear of failure outside a competitive-team environment in order to gain a better understanding of how it affects motivation to participate in sports in general.

The fear of failure model proposed by Birney, Burdick and Teevan (as cited in Sagar et al., 2007) states that society places great value on high achievers and measures a person's self-worth by their success. According to this model, avoiding achievement situations would be expected for youth who are particularly vulnerable to the personal consequences of failure. For example, students used avoidance strategies such as being less involved in school activities in order to avoid the anxiety associated with having to achieve success (Caraway et al., 2003). Relative to sports achievement, Conroy (2004) found that athletes who exhibited fears of devaluing self-estimate also showed higher levels of self-blame, even when all other fears of failing were controlled for. Conroy concluded that such an internalization of failure meant that the fear of devaluing self-estimate was the most maladaptive form, as it increased amotivation and led to higher dropout

rates. Therefore, athletes who view failure as being a threat to their own self-worth, would be likely to adopt avoidance strategies, in order to protect their self-esteem and boost confidence.

When Sagar and colleagues (2007) asked athletes to report their emotional consequences of failure during sporting events, the most common consequences reported were: diminished perception of self, having no sense of achievement, feelings of disappointment from significant others and a lack of confidence. The relationship between fear of failure and confidence is especially important in sports settings, as self-confidence has been shown to have a positive linear correlation with performance (Woodman & Hardy, 2003). When performance is negatively affected, there is a general tendency for a reduction in athletes motivation, so that they all but give up when they have been failing. Moreover, Conroy (2001) reported that fear of failure was associated with an increase in youth sport dropout rates. However, withdrawing from participation in sports, in order to avoid the emotional cost of failure, may not reduce the fear of failure itself. Sagar and colleagues (2007) identified that athlete's worried not only about the consequences of their failure in the present situation, but also about what events they would most likely be able to perform in the future. One participant also revealed that their negative attitude from failing in sport carried on into their social life. The findings from these studies and similar research have identified several emotional consequences associated with failing, and the effect this can have on a person's motivation to participate.

2.3.3. Motivation Theories

One theoretical approach to fear of failure research is the need achievement theory (Atkinson, 1957). In this theory, there are three typologies that are used to characterise motivation: success oriented, failure avoidant, and failure accepting. Success-oriented individuals are generally optimistic and respond to setbacks with energy, by adopting a proactive and positive orientation towards the task (Martin, & Marsh, 2003). Those that are failure-avoidant on the other hand are generally

anxious, live in self-doubt, are uncertain about their abilities and are motivated by fear of failing (Atkinson, 1957). Even when they do achieve, any setbacks they have faced have negatively affected them in such a way that they view these as confirmation of their beliefs about lack of abilities or self-doubts. These failure-avoidant individuals lack resilience and will often sabotage their chances of success because they want to have an excuse as to why they failed, or something else to blame if they do not succeed. Such sabotages include procrastination or expending little effort. Those that are failure-accepting (or learned helplessness) have typically given up to the point that they would rather not try in order to completely avoid failure. These individuals lack motivation as well as resilience. The need achievement theory can further explain why some drop-out of sport participation.

Building on Atkinson's (1957) theory, achievement motivation theorists have focused on the need for achievement as being an approach toward success, as well as a motivation to avoid failure (Castella et al., 2013; Conroy, 2001; Conroy & Elliot, 2004; Martin & Marsh, 2003; Teevan & McGhee, 1972). Similar to the need achievement theory, self-worth theory (Beery, 1975; & Covington, 1984) identifies *deflective strategies* to deal with fears of failing. Rather than simply finding ways of coping, self-worth theory looks at the way in which individuals will change their personal meaning of failure in order to fit with their self-belief. According to self-worth theory (Beery, 1975; & Covington, 1984), in the environment of sport (where ones self-worth is contingent on their ability to achieve) if youth were to perceive themselves as being incompetent, this could trigger feelings of shame and embarrassment. The need to be viewed as competent and gain self-acceptance, is considered in self-worth theory as being the highest human priority, which can bring about either a fear of failure or an orientation to approach success (Covington, 1984). In an effort to protect ones self-worth, youth may develop deflective strategies as a way of altering the meaning of failure, by detracting from their 'true' level of ability (Castella et al., 2013). Deflective strategies include behaviours such as expressing unrealistically low expectations for one's self, or deflecting the cause of failure away from their own ability.

These motivational theories identify fear of failure as a key factor in the motivation of youth to participate or withdraw from an achievement-driven activity. With regard to the sports environment, fear of failure has predominantly been researched as an association to competitive anxiety and achievement goals. More recently it has been discovered that perfectionism is another contributing factor in motivation, as well as being closely related to fear of failure. Because competitive anxiety and achievement goals are more likely to be seen in traditional sports, it is somewhat expected that these concepts have not been looked at in street-sports. However, perfectionism has been described as a more stable trait that can be seen across a range of contexts (Gucciardi, Mahoney, Jalleh, Donovan, & Parkes, 2012). Though the relationship between fear of failure and perfectionism has been researched within competitive sports, it is yet to be determined if this relationship compares a sports environment whereby achievement is not contingent on the win-lose concept.

2.4. The Role of Perfectionism

Perfectionism has been described as a personality tendency, which is characterized by unrealistically high standards of self-achievement and accompanied by proneness to being overly critical in self-evaluations (Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 1991). However, through research and scientific theory, the notion of perfectionism has progressed to a differentiated view that defines perfectionism as a multidimensional personality disposition, (Sagar & Stoeber, 2009; Flett & Hewitt, 2002), involving intrapersonal and interpersonal aspects (Gucciardi et al., 2012). The most universally recognised traits that tend to be agreed upon by perfectionism theorists are; a striving for flawlessness, tendency to set exceedingly high standards of personal performance, being overly critical of one's self, as well as being overly sensitive to mistakes – especially when these mistakes are seen by others (e.g., Flett & Hewitt, 2002; Pacht, 1984; Stober & Stoeber, 2009).

Frost and Henderson (1991) investigated the effect of perfectionism on competitive anxiety in female college athletes, and discovered that not only did overall perfectionism have a positive correlation with competitive anxiety, but also an inverse correlation with self-confidence. When negative facets of perfectionism were individually investigated, it was only 'concern about mistakes' that was inversely correlated with self-worth. This is important because not only is self-worth influential in sport performance, but also in positive youth development in general. For instance, Edwards, Mumford and Serra-Roldan (2007) found that resilient children, who had developed higher self-worth, were more likely to be able to solve social problems and believe in their abilities to influence their lives for the better. Those that have lower self-worth will be more vulnerable to criticism from others, and especially vulnerable to the threat of mistakes in competitive settings, where such failures may result in withdrawal from important others (Flett & Hewitt, 2005). Perfectionism can also affect the social quality of a sports experience. Ommundsen and colleagues (2004) determined that maladaptive perfectionists were more likely to exhibit negative social behaviour such as self-criticism and frustration directed towards peers, which affected interactions and relationships. They found that perfectionist soccer players who played competitively lacked empathy and social responsibility and would take frustrations out on teammates, which led to reduction in social acceptance. Maladaptive perfectionists were also more likely to withdraw from peer interactions all together. They feel inferiority and want to gain approval from others in order to avoid failure. Thus they perceive acceptance as being unavailable when they do not reach perfection. This exemplifies how perfectionism may be one of the facets that render a person vulnerable to fear of social rejection. Consequently, perfectionists may find it hard to interact with peers because of their withdrawal from social situations. Finally Ommundsen et al. (2004) suggest that parents and coaches need to lower their expectations for perfect performances, and instead place more emphasis on friendship quality in competition.

As a multidimensional concept, perfectionism has both positive and negative influences within the sport domain. This dichotomy in perfectionism has generally

been described in terms of adaptive – positive perfectionism – and maladaptive - negative perfectionism (Koivula, Hassmen, & Fallby, 2002). Adaptive perfectionism has been suggested to have a motivating effect in sport performance (Ommundsen, Pierre-Nicolas, & Miller, 2004), especially for elite athletes (Dunn, Dunn, & Syrotuik, 2002). In fact, many researchers theorise that perfectionist athletes actually make high-performance athletes (Dunn et al., 2002; Gucciardi et al., 2012; Stoeber, 2011; Stoeber et al., 2007). These athletes will set high goals for themselves (being self-motivated), but are not restricted exclusively to these specific goals and have the freedom to adapt as the situation would dictate (Hart, Gilner, Handal, & Gfeller, 1998). Furthermore, adaptive perfectionists are able to accept personal limitations as well as environmental obstacles that can hinder performance. They are likely to strive to attain their best performance, while at the same time being less likely to worry about mistakes made along the way (Stoeber, et al., 2007).

More commonly, it is the negative effects of perfectionism within competitive sporting environments that are of particular interest to researchers (e.g. Dunn et al., 2006; Flett, & Hewitt, 2005; Hall, et al., 1998; Koivula et al., 2002; & Ommundsen, et al., 2005). For instance, Hall and colleagues (1998) looked at perfectionism and its relation to achievement goals. They found that athlete's perfectionist goals were suggested to render them more likely to have debilitating anxiety prior to competition. This is because personal goals were considered to reflect the meaning of 'achievement' for an athlete and increased feelings of being under pressure. As Pacht (1984) has described, perfectionists will often set themselves unrealistic goals, and therefore be always striving for something that is unreal, finding them-self in a constant state of turmoil. Evidently, this will have debilitating effects on a person's performance, and mean that perfectionism is preventing the very outcome that it seeks to promote. Additionally, another study on perfectionism and competition found that youth predisposed to experiencing anger, when not performing to expectations, were linked with maladaptive perfectionism (Dunn, Gotwals, Dunn, & Syrotuik, 2006). With these studies in mind, it seems that perfectionism within sports may not be disadvantageous, as long as it is adaptive.

The environment that seems to be most common for the negative effects of perfectionism is that of competition. In competitions, the outcome is often the most salient or most emphasised part of the process. Success and failure are judged in socially comparative terms, so that competence becomes a high importance. For athletes participating in competition, successful achievement is critical in performance-related cognitions, affect and sporting behaviour (Hall et al., 1998). It is in these conditions that Hall and colleagues suggest that athletes will experience competitive anxiety. When achievement is defined in terms of self-referent, perfectionist athletes are more likely to perceive competition as threatening because they feel they have greater control over achievement outcomes, and therefore failure would be detrimental to their self-confidence (Stoeber et al., 2007). Self-confidence involves cognitions that a person holds the necessary abilities in order to complete the task, hence why in competitive situations greater self-confidence will usually indicate higher performance. However, if nothing but perfection is acceptable, this could lead to negative consequences such as lowered self-concept and fear of failure syndrome (Koivula et al., 2002).

2.4.1. The Relationship between Fear of Failure and Perfectionism

Different aspects of perfectionism in athletes have been studied in relation to the dimensions of fear of failure. Two studies in particular have looked at the different fears from Conroy et al.'s (2002) multidimensional model. The first study (Kaye, Conroy & Fifer, 2008) investigated how perfectionist personal standards and perfectionistic concern over mistakes related to the five fears of failure in university athletes. In addition to this, they also examined the construct of perceived parental pressure, defined as the perception of athlete's parental expectations to be perfect and expectations of critique if they are not (Anshel & Mansouri, 2005). Multiple correlations revealed that a positive relationship existed between perfectionist personal standards and fear of important others losing interest and fear of experiencing shame and embarrassment. Conversely, perfectionistic concern over mistakes and perceived parental pressures were positively correlated with all five fears of failure. Moreover, parental pressure and

all five fears of failure showed positive correlations with negative emotions and low self-worth. The findings indicated that perceived pressure to be perfect and concern over mistakes, were the key perfectionism factors linked to fear of failure.

The second study (Sagar & Stoeber, 2009) examined a broader range of perfectionist aspects in athletes, and how these related to Conroy et al.'s (2002) different fears of failure. Additionally, they examined whether perfectionism and fear of failure acted as predictors on positive and negative affect after imagined success or failure within sports competitions. Hierarchical regression analyses showed that perfectionist personal standards had a negative relationship with fear of experiencing shame and embarrassment, but a positive relationship with positive affect after success. In contrast, perfectionist concern over mistakes and perceived parental pressure had a positive relationship with fear of experiencing shame and embarrassment as well as negative affect after failure. Their findings demonstrated that fear of experiencing shame and embarrassment plays a central role in the relationship of fear of failure and perfectionism. Furthermore, Sagar and Stoeber (2009) concluded that perfectionistic concern over mistakes and perceived coach pressure were aspects of perfectionism that predicted fear of experiencing shame and embarrassment, and negative affect as a result of failure. Conversely, perceived coach pressure predicted positive affect after success, suggesting that athletes felt approval would only be given following a successful performance.

The above studies demonstrate an existing relationship between fear of failure and perfectionism in competitive sports, but that it is mainly the negative aspects of perfectionism where this occurs. The construction of these two concepts remains unclear; as does the extent environmental factors influence the development of fear of failure and perfectionism. What is evident is that fear of failure and the negative aspects of perfectionism can have long-term negative consequences that could be detrimental to a person's well-being. Without a comprehensible understanding of how exactly these factors develop, it is integral to expand on current research by including a younger age range, as well as alternative sports

environments, in order to forecast important transitions through sport participation.

2.5. Youth Development

Youth development is a critical stage in an individual's life. It is a period where adult influence starts to decrease, and a transition into adulthood begins (Catalano, Berglund, Ryan, Lonczak & Hawkins, 2004). It is seen as a stage of 'preparation' (Roth, Brooks-Gunn, Murray & Foster, 1998), where individuals will go through the process of growth and increased competency in order to become productive members of society (Larson, 2000). This developmental period is subject to such a number of changes; school transitions, cognitive development, and social role redefinitions, that it makes youth vulnerable to positive or negative outcomes of behaviour (Eccles et al., 1993). During this stage for instance, youth learn that approval from important others comes from successful performance, whereas failure can instead lead to withdrawal (Conroy et al., 2002). As a result, high priority is placed on not failing. If failure does occur, the consequences can be extremely undesirable for youth, and have been associated with negative outcomes such as mental health issues, problems with physical health, moral development and problems in achievement (Conroy, et al., 2002).

Youth development organisations have often been focused on negative behaviours, designing intervention programmes that essentially work to reconstruct such behaviours (e.g. Eccles et al., 1993; Jesser & Jesser, 1977; Smoll & Smith, 1996). More recently, developmental researchers have redirected their focus towards the prevention of problem behaviours, as well as promoting positive outcomes of successful, healthy human beings (Roth, Gunn, Murray & Foster, 1998). Researchers are becoming increasingly interested in how positive developmental programs can affect successful or unsuccessful transitions from youth into adulthood (Roth et al., 1998). Catalano et al.'s (2004) meta-analysis revealed that many positive developmental programs aim to foster resilience, self-determination, self-efficacy and a clear positive identity. They promote bonding both in peer and adult relationships, and they build competency in cognitive,

behavioural, emotional and social aspects of self. Fundamentally, a central component of positive youth development programs is to provide opportunities for prosocial involvement (Catalano et al., 2004).

The importance of building social relationships favours not only the collective group, but is beneficial at an individual level as well. It is through different cultural groups, sub-cultural groups, and in activities across a range of social contexts during non-school hours that youth will develop identities (Catalano et al., 2004). Self-identity has been described by Erikson (1968), as being an internally 'self-structured' concept. A person's dynamic beliefs about their self-identity result from individual history, that has shaped their behaviour around normal crises or challenges at each critical developmental stage within their first twenty years. In order to foster positive identity for all individuals, it is therefore important that youth can participate in activities in which the environment appeals to their sense of self. How youth development is defined, is significant when looking at programs that are designed especially for youth (Danish et al., 2004). For the purpose of this research, youth development is viewed from an individualistic perspective, whereby growth occurs distinctively within different sub-cultural groups and therefore needs to be treated accordingly.

2.5.1. Motivation during Youth Development

A critical component of youth development that has been long scrutinized over is motivation. Motivational factors are important for youth development, as they determine whether a person will engage in an activity, and whether their interest will be maintained (Wlodkowski, 1981). The main focus on motivation has largely been about learning in achievement settings, and mainly within an educational setting (e.g. Christophel, 1990; Goodenow, 1993; Linnenbrink, 2005; Pintrich, 2003; 2004; Shih & Gamon, 2001). The psychological processes behind motivational theories remain ambivalent, largely because of the diversity that each theory has. For instance, Piaget (as cited in Wlodkowski, 1981) believes that children have an innate desire to learn as they are almost obliged to attempt to

understand what they observe and experience. He considers external rewards to be unnecessary as the satisfaction that ensues learning is rewarding in itself. From this theory, it is recommended that children interact with different objects, situations and their peers in order to form their own self-rewarding concepts, which will possibly be more meaningful. In line with Piaget's theories, Maslow (1970) believes that basic needs are intrinsic and innate, and dynamically influence motivation. Maslow suggests that components in the learning environment that may lead to failure or produce fear should be reduced or removed altogether, and student's talents should be publicly shown. Skinner (1950; & 1954 as cited in Wlodkowski, 1981) on the other hand, would argue that behaviour is reinforced through rewards, and that conscious processes and feelings of aspiration have no bearing on behaviour.

Evidently, motivational theories often have conflicting ideas on how best to enhance motivation, mainly because these theories are based on assumptions that the behaviour of human beings is universal (Wlodkowski, 1981), and therefore one motivational strategy may be applied to all settings. Alternatively, individual differences in motivation have been thought to derive from past experiences, which can shift according to the environmental context (Cacioppo, Petty, Feinstein, & Jarvis, 1996). This leaves much room for further exploration into motivational influences that encourage positive development for all youth. It is through the act of learning that human beings are capable of further development, hence discovering effectual tendencies to motivate youth to learn, should in turn enhance positive youth development. A basic finding that has been identified thus far is that youth will be motivated when they experience autonomy or ownership over their behaviours and see themselves as 'agents of their actions' (Larson, 2006, p. 679). This is not to say that a person must be in exclusory control, as ownership can still be experienced as part of a collaborative group, so long as that group is contributive to the individual's motivational tendencies. This reiterates the importance of social environments in the context of learning and development for youth.

2.5.2. Social Development

Social environments catalyze both within and between-person differences in personal development and motivation, resulting in integration within some situations, domains and cultures and not others. In an incompatible environment, social influences can be defeating toward morale, leading an individual to reject growth and responsibility (Ryan & Deci, 2000). Research into the specific conditions that foster versus hinder positive social development has practical and theoretical significance. Such research could contribute to the discovery of social environments that optimise youth development, achievement and general well-being (Ryan & Deci, 2000).

Larson (2000) argues that an integral part of social development for youth is *initiative*, and that through the development of initiative, youth will be better equipped to deal with today's job demands, and basic lifestyle requirements. It is suggested that the importance of the construct *initiative* comes from its association with autonomy (Deci, 1995), which has frequently been reported as having a significant impact on positive social development. Autonomy encourages youth to feel that their behaviour is a product of their true selves and not just a response to external pressures (Conroy & Coatsworth, 2007). Larson proposes that there are three main elements that construct initiative: intrinsic motivation; concerted engagement; and temporal effort directed towards a goal. Combining these elements contributes to the ability to be internally motivated and direct effort and attention towards a challenging goal. Furthermore, Larson (2000) suggests that *initiative* is a core requirement, which is best developed through voluntary activities where youth are intrinsically motivated to learn. In order to gain an understanding of how social contexts contribute to an individual's capacity to learn and be motivated, a number of social theoretical frameworks have been considered.

2.5.3. Social Motivational Theories

Bandura's Social Learning Theory

Bandura's (1971) perspective of the psychological functioning of social learning on youth development focuses on cognitive, self-regulatory, and self-reflexive processes in youth's adaptation. His theoretical view states that learning development is the result of a dynamic interplay between personal, behavioural and environmental influences. This sets the scene for Bandura's concept of *reciprocal determinism*, which integrates three factors: (a) personal factors in the form of affect, cognition, and biological events; (b) behaviour; and (c) environmental influences, resulting in the *triadic reciprocal causation model* (see Figure 1). The model represents three alternative conceptions of interaction, in which accordingly, personal factors are bidirectional with behavior and environmental factors, whereas behavior and environmental factors are only partially bidirectional.

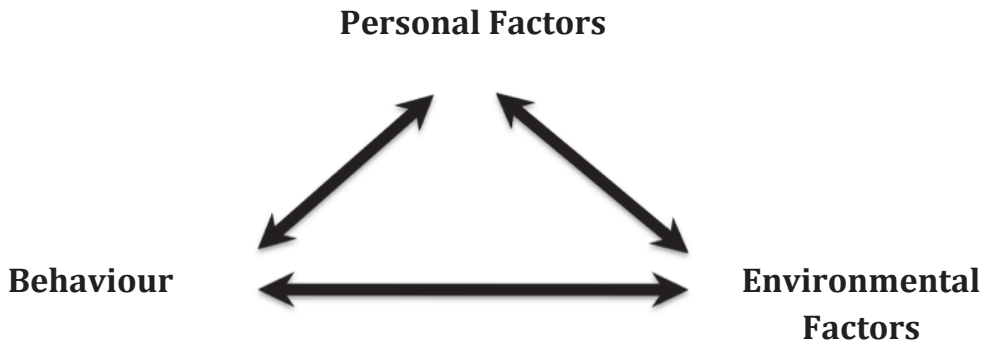

Figure 1. An adaptation of Bandura's (1978) Triadic Reciprocal Causation model.

The *triadic reciprocal causation model* highlights how the environment can influence a person's behavior, but that in order to foster positive development, the person must be motivated within that environment, and this will be conducive to their individual needs.

Self-Determination Theory

Similar to the interactional framework of social learning theory, the principles of self-determination theory (SDT) centre on the interaction between extrinsic factors and a person's intrinsic motives and needs (Deci & Ryan, 1985 as cited in Ryan & Deci, 2000). SDT is an approach to human motivation, behavioural self-regulation and personality that all develop from evolved inner resources. Such developmental tendencies do not operate naturally without ongoing social support. As a meta-theory for motivational studies, SDT looks at roles of intrinsic and extrinsic motivation in cognitive and social development as well as individual differences. Specific social contexts catalyze personal differences in growth, resulting in an individual becoming more motivated in certain situations, domains and cultures (Ryan & Deci, 2000).

Three important factors have been identified in SDT, which include: the need for psychological relatedness (social relations with others); the need for competency (the ability to be able to perform); and autonomy (the capacity to make informed, un-coerced decisions, or to be self-governing) (Deci & Ryan, 1991). These three primary needs appear to be essential in fostering positive social development and personal self-worth. SDT proposes that if any of these psychological needs are unsupported in a social context, this will negatively influence self-worth in that setting. For instance, Deci (1975) suggests that external rewards may in fact undermine intrinsic motivation, whereby rewards will facilitate an external focused locus of control, and reduce autonomy. The importance of SDT in social development is that it includes fundamental needs that are essential in enhancing self-worth. Crocker and Park (2004) propose that while self-worth is often seen as a goal, it should furthermore be appreciated as a basic need. When basic needs are met, happy and healthy development is more likely (Ryan & Deci, 2000).

Research into specific settings that foster youth development has contributed to the knowledge of factors within a social environment that optimizes positive performance and self-worth. The theoretical framework of the above social theories of motivation has helped to explain why students thrive in particular

situations that have an effect on an individual's motivational tendencies, and not in others. Identifying motivational factors also highlights how motivation is not universal, but differs significantly for each individual.

2.5.4. Development through Sport

As one of the main policies for Sport and Recreation New Zealand (Sport New Zealand) is to "foster an environment where more New Zealanders are physically active in sport and recreation", it is imperative that this policy includes all types of sports, to ensure individualism and freedom of choice is respected. Thorpe (2014) has argued that youth development programmes need to encompass a provision of opportunities for shared experiences that are refocused towards appreciating creative self-expression and individual differences. Furthermore, she stresses how we should be moving away from the traditional hierarchical coach-athlete relationship that is seen in competition, and towards peer-mentoring. Furthermore, Thorpe highlights the obligation for sport activities that are directed towards achievement at a non-competitive level.

Focusing on the more dominant sports that have overwhelmed the research thus far, both positive and negative effects of participation in sport have been found (Danish et al., 2004; Mahoney & Stattin, 2000; Strean & Holt, 2000). It has been suggested that it is the individual's experience of sport participation (Danish et al., 2004), as well as the structure and context of the activity (Mahoney & Stattin, 2000) that determines whether participation is viewed as negative or positive. In competitive sports, youth have opportunities to build youth-adult relationships (Perkins & Noam, 2007), learn physical skills under the guidance of a coach, and develop leadership skills in a team environment (Hansen et al., 2003). Despite such positive benefits, participating in competitive sports has also been associated with competitive anxiety and increased stress (Scanlan & Lewthwaite, 1986). A proportion of youth will strive in an environment where they compare their skills and abilities against others, and be dedicated to the lengthy hours required for training (Vallerand & Losier, 1999). For others, the distress of defeat during

competition may not be worth giving up so much of their time if they feel they will not be rewarded for it.

Research has indicated that negative interactions within competitive sports can have undesired effects on youth development. Eccles and colleagues (1993) found that some team sports settings were encouraging of alcohol and drug use, while an acceptance of aggressive and sometimes violent behaviour was evident in competitive team sports as well (Gardner & Janelle, 2002). These sports are a setting where youth can be motivated to excel because they are aware that having good sports skills is something that peer's value. In this way, they develop self-knowledge and a greater sense of self-awareness (Hansen et al., 2003). Yet at the same time, comparison to peers abilities could mean that individuals become aware of a discrepancy between their actual and ideal skill level, and consequently develop negative self-knowledge. This peer-comparison (Ntoumanis, 2001) largely contributes towards aversive behaviours in team sports, such as aggression and violence (Gardner & Janelle, 2002). The pressures on coaches to produce a winning team further encourage peer-comparisons. Importance is placed on naming the best team on game day, which not only encourages players to perform to the best of their ability, but to want to perform better than their peers. In this sense, peer-comparison fails to support social and personal development for youth.

Perkins and Noam (2007) say that the way in which youth become engaged in certain sports programs is more beneficial for their personal development than whether they win. Lee et al. (as cited in Beal, 1996) support this point by stating that the focus during youth development should be on 'task climate', which psychologists describe as success being dependent on the best performance the individual is capable of, rather than being better than others (ego–climate). Additionally, Kirk (2005) suggests that youth need the opportunity to participate in activities that are authentic, interesting, and of preference to them, in order to improve. For youth in particular, these opportunities are crucial, as this is the time in a person's life that Kirk describes as the 'sampling years'. During the sampling years, youth will develop at different maturational rates. Evidently, those who mature early will be physically stronger and have more developed

neurophysiology, giving them distinct competitive advantage in learning new sports skills. It is reasonable then, to assert that this could be why competitive situations may not always be propitious for youth development.

2.6. Development of the Research Question

The literature on fear of failure in sports is mainly limited to competitive sports. Failure is determined as a non-attainment of a desired outcome of competition, and assumptions are made based on the nature of competitive anxiety. Where the literature on fear of failure is lacking, is in a sports environment that is not centered on competition, and where achievement outcomes are essentially self-defined. There is a deficiency of research on 'street-sports' in particular, and more specifically, in adolescents that participate in street-sports. Furthermore, because the learning environment of street-sports is different in nature to that of competitive sports, (such that learning is primarily self-taught, and based on observation and trial and error), it is a novel setting in which comparable learning styles are not yet understood.

Research on fear of failure has shown close links with perfectionist strivings and perfectionist concerns. These findings have been consistent across both academic (e.g. Flett, Blankstein, Hewitt, & Koledin, 1992; Solomon & Rothblum, 1984) and sport settings (e.g. Sagar & Stoeber, 2009; Stoeber & Becker, 2008). However, these have been looked at within competitive environments and therefore, there is a reasonable need to research the link between fear of failure and perfectionism in a non-competitive environment.

Fear of failure has been described as a salient personality characteristic in achievement settings (Conroy, 2003). Furnham (1992) argues that there is such an overlap between personality and learning style that occurs, that there is no need to measure both of these variables. For instance, extraversion strongly correlated with active learning styles, and introversion with reflective learning styles, on three different measures. Grasha's (1996) research indicated that learning style is

a personal preference that will determine the activity type that one will choose, as well as the way in which they participate in a learning experience. The learning styles measured in the Grasha-Riechmann Learning Styles Scale (GRLSS), are based on the premise that a person will have a preference to gravitate toward a particular learning style over another. This instrument is not a measure of automatic cognitive processing, and therefore can be constructed through personality characteristics.

Based on the review of literature, the present research has a contextual framework that focuses on preference of learning styles in street-sport participants, how they rate on fear of failure, and whether these two constructs are related to perfectionism.

The following research questions have been proposed for the current study:

1. Is there a relationship between fear of failure and perfectionism in a sample of non-competitive street-sport participants, similar to previous research?

2. Are street-sport participants more inclined to have a preference for one particular learning style?

3. Is there a relationship between fear of failure and learning style, and perfectionism and learning styles? If so, can learning style act as a predictor on these two constructs?

One of the aims of the current study is to find out if learning style can predict how high a person will score in fear of failure. For instance, are certain learning styles more closely related to fear of failure, or different aspects of fear of failure?

Based on the literature review, it is expected that fear of failure and perfectionism would correlate in a non-competitive environment, as there is strong evidence to show that these two constructs are related. Given the close relationship between these two variables, it is expected that even if this sample scores low on the

perfectionism scale, a positive correlation should be seen with fear of failure.

From previous qualitative methods of research on street-sports, motivations of participants to practice these sports would suggest they are more likely to be dependent over independent learners, avoidant over participant, and collaborative over competitive.

Because there is no previous research on the relationship between the specific learning styles in this study and fear of failure, it is uncertain what the expected relationship would be between fear of failure and learning styles, and therefore this part of the research would be exploratory.

3. Methodology

3.1. Participants

All participants in the current study were males and females from the ages of 10 to 18 years of age, who participated in at least one of the following street-sports: parkour, BMX or skateboarding, and who identified this as their main form of sport participation. Of the initial 108 participants who volunteered and had questionnaires sent to them, 29 responded with completed questionnaires being returned, generating a 27% response rate. Participants were a total of 25 male (*M* age = 14.46 years, SD = 1.8), and 4 female (*M* age = 15.5 years, SD = 1.0); recruited from skateparks and parkour groups within the North Island region. Asked to indicate how frequently they practiced their preferred street-sport, participants indicated that they practiced *once a day* (53.6%), *2 – 3 times per week* (35.7%), and *about once a week* (10.7%). Selection criteria specified that those who did not participate in their preferred sport on a regular basis (being defined as at least once a week), would be excluded from the research. No participants were excluded due to this criterion.

Table 1 shows the research sample numbers and percentages for demographic details. For presenting figures in Table 1, age was split into two groups: 1) participants aged 10 to 15 years and 2) participants aged 16 to 18. Those participants aged 10 to 15 years of age required parental consent in order to be eligible for this study. Slightly more participants belonged to the 10 to 15 year age range, however this was only marginally more. Just fewer than half the participants were from the second age bracket (16 – 18 years), even though this age range only spanned 3 years as opposed to 6 for the first age bracket. The majority of participants were of NZ/European ethnicity, and practiced parkour as their main sport, although the difference between this street-sport and skateboarding was marginal.

Table 1.

Number of Participants and Percentages for Demographic Information

	N	%
Age		
10 – 15 year olds	16	55.2
16 – 18 year olds	13	44.8
Ethnicity		
NZ/European	15	51.7
NZ/Maori	7	24.1
Other Ethnicity	7	24.1
Sport type		
Parkour	14	48.3
Skateboarding	13	44.8
BMX	2	6.9

A statistical power analysis was conducted to determine the sample size needed for this particular research. As there was no previous research in this particular area and the effect size is not generally familiar, the researcher elected a medium value of effect size (r = .30) based on Cohen's (1997) proposed operational definitions. A medium effect size is representative of an effect that would be apparent to the naked eye when carefully observed. With a power of .80 and alpha of .05, a sample size of 89 was indicated. To double-check this figure, and thereby further solidify the researchers reasoning for this sample size, these figures were run through G*Power (Faul, Erdfelder, Buchner, & Lang, 2009); an online tool used to calculate power analyses, which produced a similar sample size of 82.

3.2. Measures

3.2.1. Descriptive Statistics

A self-report questionnaire was used to collect demographic data, and scores on the three scales measuring learning style, fear of failure and perfectionism (see Appendix B). From this data, means and standard deviations were calculated for participant age, preferred learning style, perfectionism scores and fear of failure scores. Percentages were calculated for main sport, gender and ethnicity. In order

to measure the probability distribution, skewness and kurtosis were tested for each of the subscales for the three instruments. Skewness looks at asymmetry of the data, with a negative or positive skew indicating that the distribution of data is concentrated at one particular end (Field, 2013). Kurtosis is a measure of the peakedness of probability distribution, in which graphical analysis describes width of peak and tail weight. Histograms of skewness and kurtosis were observed graphically, and alpha values were briefly inspected to check the assumptions of normality (see Appendix H, Appendix I and Appendix J).

The front page of the questionnaire required participants to give demographic information (see Appendix B). It consisted of 3 items that were designed by the researcher, and asked about ethnicity, main sport of participation, and frequency that they practiced their street-sport per week/month. The age of participants was recorded at the time of recruitment in order to identify whether they required a consent form for the participant (see Appendix F), or a parent/guardian consent form (see Appendix G) on behalf of the student. Participants details given at recruitment were recorded beside an assigned number, which was subsequently entered on the questionnaire sent to them, so that their name would not need to be written anywhere on the questionnaire form, which ensured anonymity.

Three self-report instruments were included in the questionnaire distributed to participants: 1) the Performance Failure Appraisal Inventory – Long-Form, 25 items (PFAI) (Conroy et al., 2002), 2) the Perfectionism Inventory (PI) (Hill et al., 2004), 3) the Grasha-Reichmann Learning Style scale (GRLSS) (Reichmann & Grasha, 1974) (see Appendix B). To check suitability for the required age group, the researcher had two 10 year-olds first read through all three scales to ensure they understood the questions, and were able to give true answers. Two 10 year-olds known to the researcher read through all the items on each scale and were asked to repeat back their understanding of each item, and to question the researcher if they did not understand anything. The researcher determined that both 10 year olds' understanding was satisfactory and therefore questionnaires were appropriate for the intended age group.

3.2.2. Learning Styles

To measure learning styles, the Grasha-Reichman Learning Styles Scale (GRLSS) (Reichmann & Grasha, 1974) was utilized. The scale contains 60 items that fit into three bipolar subscales (often referred to as dimensions of learning); 1.) Independent and Dependent, 2.) Participant and Avoidant, and 3.) Competitive and Collaborative. Although the GRLSS was developed for use with college students (Ferrell, 1983), it was determined to be the best fit scale for use with this particular sample for two main reasons; firstly, other instruments that aim to measure learning within a sports environment mainly involve coach and team aspects, which are not associated with street-sports. Secondly, the theory behind this learning styles measurement emphasises social interactions, and therefore is relevant to test against fear of failure and perfectionism.

Each of the six learning styles are categorised with relation to the following definitions (Riechmann & Grasha, 1974): Independent: likes to work alone and thinks for themselves, learn what they feel is important and is confident with personal learning ability. Dependent: only learns what is required, needs guidance and support and needs to be told what to do. Avoidant: uninterested in learning within traditional learning environment, does not like to participate with students or teachers and are likely to get low grades. Participant: enjoys, and takes responsibility for learning, functions effectively in traditional learning environment, is more likely to get good grades. Collaborative: emphasis is on sharing ideas and prefers to work in groups, cooperates with teachers and peers and sees the classroom as a place for social interaction. Competitive: learns content with the intention of being better than others, feels that they must compete with peers and views the classroom as a win-lose situation in which they must always win.

Although this scale appeared to be lengthy for the use with children under the age of 15, it was important to ensure the reliability of the scale was preserved, and therefore none of the items were removed prior to administration. The GRLSS places the learner along each of the bipolar dimensions of learning. Participants

should rate higher in only one of the subscales within each of the three dimensions. The GRSLS focuses on learner preferences, as well as incorporating affect and social dimensions into the measurement of style. To all items, participants rate the extent to which they agree with each of the 60 items using a 5-point likert scale (1 = "strongly disagree"; 5 = "strongly agree"). With Cronbach's α of .78, the six sub-scales displayed satisfactory test-retest reliability coefficients ($N = 60$), ranging from .64 for the Independent and Competitive scales to .78 for the Participant scale and .79 for the Avoidant scale (Reichmann & Grasha, 1974). All correlation coefficients between scale scores and criterion items were reported as being significant at the .01 level of confidence (Riechmann & Grasha, 1974), indicating good validity.

3.2.3. Fear of Failure

The performance failure appraisal inventory (PFAI) (Conroy et al., 2002) was used to measure fear of failure. The PFAI consists of 25 items that measure beliefs associated with aversive consequences of failure. The PFAI is comprised of five subscales of which capture the following fears associated with failure; fear of experiencing shame and embarrassment (7 items e.g., "when I am failing, I worry about what others think of me"), fear of devaluing one's self-estimate (4 items; e.g., "When I am failing, I blame my lack of talent"), fear of having an uncertain future (4 items; e.g., "when I am failing, my future seems uncertain"), fear of upsetting important others (5 items; e.g., "when I am failing it upsets important others"), and fear of important others losing interest (5 items; e.g., "when I am not succeeding, people are less interested in me").

The fear of experiencing shame and embarrassment has been linked with increased self-blame, and a reduction in self-affirmation whilst failing (Conroy, 2004). The emotions of shame or embarrassment are also related to maladaptive self-talk and 'contextual motivation' (that is that motivation is determined by the setting and not the lethargy of the person). Threats associated with shame, play a key role in the dysfunctional aspects of fear of failure (Conroy & Elliot, 2004). In

the achievement setting, one will seek to avoid failure because they want to avoid feelings of shame and humiliation (Sagar, et al., 2007). The next concept of fear of failure – fear of devaluing ones self-estimate, has been suggested to stem from a concern that a person may have to lower their self-expectations, and re-evaluate their opinion of themselves (Conroy, 2004). Fears of having an uncertain future have been associated with hostile and maladaptive self-statements including elevated levels of self-blame, self-attack, and self-neglect while failing (Conroy, 2004; Conroy & Elliot, 2004). This aspect is more commonly associated with high achievement in an academic setting, where the fear of ruining the chance for future prospects (such as university prospects or a career), is the motivational factor. Fears of important others losing interest, or upsetting important others refer to people such as parents or teachers as being important, and in the setting of sports, coaches as well (Conroy, 2004; Conroy & Elliot, 2004). In street-sports, these important people could be older peers that the younger ones look up to, or the more experienced participants who are more familiar with the environment.

Conroy's model works off the concept behind Lazarus' (1991) theory. Lazarus' theory states that emotions are associated with cognitive-motivational-relational appraisals, about perceived changes in an individual's relationship to the environment that can either positively or negatively affect a person's well-being. It involves appraising a threat in evaluative situations that have the potential for failure. According to Lazarus, cognitive-motivational-relational appraisal is the necessary mediator of emotional experiences in fear of failure. Appraisals are assessments (cognitive) perception about changes in the environment (relational) and how this affects their ability to reach a personally meaningful goal (motivational) (Conroy, 2001).

Participants rated their beliefs using a 5-point Likert scale, that asked each participant to respond by circling a number from -2 = "do not believe at all, to +2 = "believe 100% of the time". All scores displayed satisfactory reliability (Nunnally, 1994), with cronbach's alphas >.70. Acceptable factorial validity has been demonstrated for PFAI scores in three previous studies (Conroy, 2001; Conroy et al., 2002; Conroy, Metzler & Hofer, 2003).

3.2.4. Perfectionism

To test the multidimensional aspects of perfectionism, the PI (perfectionism inventory) (Hill et al., 2004) was used. The PI is a 59-item questionnaire aimed at identifying how much the respondent values the importance of each of the items in relation to perfectionism. The theory behind the PI was developed from two pre-existing constructs – both named Multidimensional Perfectionism Scale (Frost, Marten, Lahart, & Rosenblate, 1990; & Hewitt & Flett, 1991). The reasoning behind combining the two scales is that Hill and researchers (2004) considered that both offered unique contributions to the measure of perfectionism. In the PI, perfectionism is measured in a comprehensive way that includes self, other and socially oriented perfectionism, while including both negative and positive attributes of perfectionism (Hill et al., 2004).

This scale is also a lengthy scale when used with children under the age of 15, however no items were removed prior to administration, in order to ensure the reliability of the scale was preserved. A 5-point rating response scale is utilised in the PI, with anchor points: 1 = "strongly disagree" to 5 = "strongly agree". Two types of perfectionism are defined and comprise of four subscales each. The first, Conscientious Perfectionism (CP), is considered an adaptive form of perfectionism. The four subscales it includes are: having high standards for others (e.g., "I get upset when other people don't maintain the same standards I do"), organization (e.g., "I think things should be put away in their place"), and planfulness (e.g., "I find myself planning many of my decisions"), and striving for excellence (e.g., "my work needs to be perfect in order for me to be satisfied"). The second, Self-Evaluative Perfectionism (SEP) is considered to be a maladaptive perfectionism, and includes the following four subscales: concern over mistakes (e.g., "if I make a mistake, my whole day is ruined"), need for approval (e.g., "I am over sensitive to other peoples comments"), perceived parental pressure (e.g., "my parent(s) are difficult to please"), and rumination (e.g., "if I say or do something dumb, I tend to think about it for the rest of the day"). Internal consistency has been reported as high, ranging from .83 to .91 for all of the subscales (Hill et al., 2004). Convergent validity was determined by Hill, Huelsmann and Araujo (2010) as being sufficient

when compared with other measures of multidimensional perfectionism such as scales by Hewitt and Flett (1991) and Frost, Marten, Lahart and Rosenblate, (1990).

3.3. Procedure

Ethical approval was sought and obtained from Massey University Human Ethics committee (see attached letter of approval, Appendix A). Standard ethical and informed consent procedures were adopted throughout the study. The researcher and an assistant approached skate parks from around the North Island region, where BMX and skateboarding were practiced. Information letters (Appendix C) were sent to parkour organisations seeking permission to attend meets in order to recruit participants. Organisers and parents were initially approached, as a way of informing them of the intentions of the research, and to encourage them to allow their children to participate. Potential participants seen to be practicing one of the specified street-sports were initially informed face to face as to the nature of the research and asked if they would be willing to participate. They were informed that the researcher was interested in learning more about those that participated in street-sports, especially in relation to their preference of learning style. Potential participants were also told that a questionnaire would be mailed to their home address within the following 5-10 days. Because all potential participants were in the middle of practicing their activity when approached, they were not given the information sheet (see Appendix D) to take with them (unless requested), but were offered the opportunity to read through it at the time, as well as being told that it would be posted along with the questionnaire. Those that agreed to volunteer were then asked to record their contact details so that the questionnaire may be sent to their postal address for them to complete at home. It was determined that expecting participants to stop their activity for a period of 30 minutes or more, was infeasible. This also meant that those under the age of 16 would not be able to complete the questionnaire on location, as parental consent was required before data could be collected, and parents were rarely seen at the location of skateparks or parkour meets.

Questionnaires were distributed to postal addresses, along with an information sheet, a consent form (see Appendix F and Appendix G), and a pre-stamped return envelopes. The letters explained the requirements, aims and procedures of the study and assured complete anonymity, and that all information would be treated with the utmost confidentiality. Consent forms required signatures from participants over the age of 15 years, or a signature from parents (or guardians) of those participants under the age of 16 years. Participants were required to complete questionnaires in their home (or a place at their discretion) at a time of their convenience. Participation was confirmed in the study, once completed questionnaires, along with signed consent, had been received from the participant or their respective parent. From 107 questionnaires that were distributed, 29 were completed and returned, generating a response rate of 27%. All 29 questionnaires were returned with a signed consent, either from a parent (if they were under the age of 15), or from the participant themselves (on the provisory that they were 16 years of age or older).

3.4. Research Design

One purpose of the current study was to investigate whether a relationship existed between fear of failure variables and learning styles. Relationships were tested via self-reported measurements that participants completed at home. Pearson's *r* correlation was used to determine whether relationships existed between the variables.

The second purpose of the study was to explore the relationship between fear of failure and perfectionism, to determine whether this produced similar findings to previous research that indicates a strong reciprocal relationship between the two variables (Conroy et al., 2007; Sagar, & Stoeber, 2009). These variables were investigated through the use of the Pearson correlation technique as well.

Finally, the extent to which fear of failure could predict learning style preference was studied with the use of regression analysis. All analyses were computed with the use of SPSS version 22.0.

3.4.1. Reliability

To measure reliability on all the scales, subscales and individual items as well Cronbach's alpha (1951) was used. Cronbach's alpha is a technique frequently used in social science literature (Cortina, 1993; Cronbach, & Shavelson, 2004), where only a single test administration is required in order to give a reliability estimation (Gliem & Gliem, 2003). The closer to 1.0 the reliability coefficient is, the greater the internal consistency of items on a scale. This study followed the general rule provided by Nunnally and Bernstein (1994) that .80 is a good level for Cronbach's alpha.

3.4.2. Correlations

Bivariate correlation analysis was used to investigate the following research questions set out in the current study: Is there a relationship between fear of failure and perfectionism, and does a relationship exist between fear of failure and learning styles, and perfectionism and learning styles? Cohen (2013) suggests the use of correlation coefficients as flexible analyses for the function of a dependent variable (in this case fear of failure) in relation to independent variables of interest (learning styles and perfectionism). Correlation coefficients in the range of .40 to .70 were considered to represent a moderate relationship between variables. Due to a small sample size in the current study, coefficients with a p value of <0.5 were accepted as signifying an existing relationship, indicated as acceptable by Field (2013).

Previous research that has demonstrated a positive relationship exists between fear of failure and perfectionism in athletes also used correlation analysis to determine the extent of a linear relationship between variables (Conroy et al.,

2007; Sagar, & Stoeber, 2009). Though specific aspects of fear of failure and perfectionism have shown more definitive relationships (e.g. fear of upsetting important others with perceived parental pressure, (Sagar & Stoeber, 2009), and overall fear of failure with others expectations (Flett, Blankstein, Hewitt, & Koledin, 1992), these have not been researched in a non-competitive sports sample before. Therefore, in the current study, it was not predetermined which aspects of the three constructs would specifically correlate. Accordingly, all dependent and independent variables were run through a correlation analysis simultaneously to determine existing relationships.

3.4.3. Regression Analysis

Following correlation analyses, three sets of multiple regression analysis were calculated, examining which learning styles made unique predictions of overall fear of failure, as well as both perfectionist sum scales. The intention of this analysis method was to confirm or disconfirm the hypotheses that suggest a relationship exists between (a) learning styles and fear of failure, and (b) learning styles and perfectionism. Given the limited research on the learning styles used in this study, a forward-selection stepwise model was used to show which of the independent variables will have the best predicting powers.

The data was automatically computed in SPSS by fitting a linear equation to the observed data and testing the fit (Cohen et al., 2013). Analyses was intended to determine the proportion of variance in the dependent variables (fear of failure and perfectionism), accounted for by predictors or independent variables that were added to each model. This proportion explained the effect of the predictor on the dependent variable, and indicated the influence of the predictor on fear of failure and perfectionism. The coefficient of determination (R^2) statistic given in a multiple regression analysis is commonly used to explain how effective the independent variables are at predicting the dependent variable. Subsequently, the higher the R^2 value, the more effective the independent variables were considered to predict overall fear of failure scores, as well as CPSS and SESS scores.

3.4.4. Moderation

Due to the relationship previously identified between fear of failure and perfectionism (Conroy et al., 2007; Sagar & Stoeber, 2009) this study examined whether perfectionism moderated the relationship between learning styles and fear of failure. Following Baron and Kenny's (1986) regression approach, three continuous variables were entered into the causal pathway. These three variables are shown in Figure 2, which point towards fear of failure, represented as the outcome variable. Path a represents learning style as a predictor, path b is the impact of perfectionism sum scales as a moderator, and path c represents the interaction between learning styles and perfectionism sum scale.

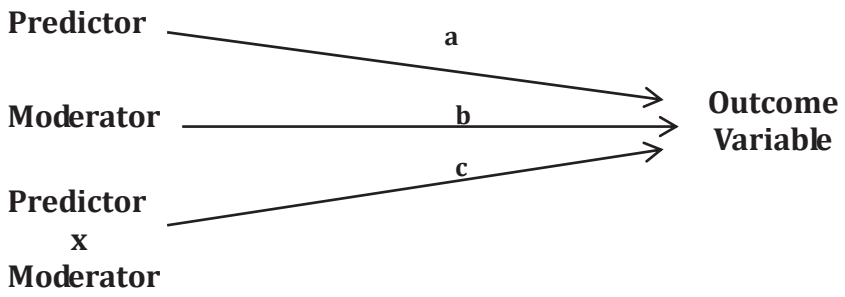

Figure 2. Moderator model as depicted by Baron and Kenny (1986).

Four moderation analyses were initially run with overall fear of failure as the outcome variable. The first two analyses tested conscientious perfectionism as a moderator of both Collaborative learning and Competitive learning on fear of failure. The second two analyses tested self-evaluative perfectionism as a moderator of both Collaborative learning and Competitive learning. A moderation effect was determined if the interaction term ($^{X}_{1}$ x $^{X}_{2}$) – where $^{X}_{1}$ is the predictor and $^{X}_{2}$ is the moderator – was statistically significant at the 0.05 level. That is, the interaction between perfectionism sum scale level and learning style accounted for more variance than just perfectionism sum scale level and learning style by themselves.

3.4.5. Mediation

Finally, as suggested when testing moderation, mediation analysis was also carried out (Baron & Kenny, 1986). To test whether the covariance relationship of learning styles and fear of failure levels was being mediated through perfectionism, mediation analysis was conducted following the Baron and Kenny (1986) regression method. Zero-order correlations and regression scores were computed using the Jose online MedGraph computation method (Jose, 2013). Significant mediation was obtained if the significance of the Sobel's z-score showed a p-value of less than 0.05 (Baron & Kenny, 1986). Because the Sobel test has been stated as having low statistical power, especially with smaller sample sizes (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002), the upper and lower 95% confidence intervals were also examined to determine significance. If either of the confidence intervals contained a range including zero, then results were considered non-significant.

4. Results

4.1. Descriptive Information on the Sample

The mean age of all 29 participants was *M* = 14.59 years (*SD*=1.8) with a range of 11 to 18 years. To see what the age distribution was among participants preferred sports, the demographic data was split into two separate groups; 1.) parkour (*N* = 14) and 2.) BMX or skateboarding (*N* = 15). The mean age for parkour participants was *M* = 14.93 (*SD*=1.98) with a range of 10 to 18 years, while the mean age for the BMX and skateboarding group was *M* = 14.27 (*SD*=1.62) with a range of 10 to 18 years. Levene's test for equality of variances was not found to be violated for the present analysis, F(1.832) = .91, *p* = .99. Further demographic information for participants is displayed in Table 1. The data from Table 1 demonstrated the proportion that each sport represented the street-sport sample. With regards to their main sport, parkour and skateboarding were relatively evenly represented with 14 participants indicating that they practiced parkour (48.3%), and 13 participants indicating skateboarding as being their main sport practiced (44.8%). BMX was the least represented sport in the current sample, as only 2 reported this as their main sport of practice (6.9%). Because BMX and skateboarding are both sports that are practiced in the same arena, and participants from these two sports were recruited in the same fashion, BMX and skateboarding were recoded into the same category for the purpose of demographic frequencies.

The majority of participants were male (*N* = 26, 89.7%), with only 3 being female (10.3%). Female participants were represented in both parkour and skateboarding, but not BMX. With regards to ethnicity, participants who participated in parkour predominantly identified as NZ/European, with the least represented ethnic group being NZ/Maori (see Table 2). BMX/Skateboarding participants were equally represented by NZ/European and NZ/Maori ethnic groups. A chi square test of independence revealed that the difference in ethnicity was not significant, $\chi^2(2, N = 29) = 4.16$, $p = 0.16$.

Table 2.

Demographic Information on Participants

	Parkour		BMX/Skateboarding	
	N	**%**	**N**	**%**
Gender				
Male	12	85.7	14	93.3
Female	2	14.3	1	6.7
Ethnicity				
NZ/European	9	64.3	6	40
NZ/Maori	1	7.1	6	40
Other	4	28.6	3	20

Means, standard deviations, internal consistencies and distributions were calculated for all subscales within each of the main scales, as well as overall scores for both the PFAI and PI scales. Scores for Learning Style are shown in Table 3. Most of the mean scores for preference of Learning Style were seen to be quite similar to each other with a range of (M = 3.1, SD = .72 to M = 3.7, SD = .77), with each subscale consisting of ten items for a minimum score of 1 and a maximum of 5. Only one subscale in the G-RSLS stood out as being much lower than the rest, which was the Competitive subscale (M = 2.7, SD = .55). The subscale that participants scored highest in was Collaborative (M = 3.7, SD = .77).

Assumption of normality and residuals were graphically examined and normality curves were included (see Appendix H, Appendix I and Appendix J), to assist with determining the assumptions. All distributions showed consistent normality. A few of the subscales showed longer tails at one end of the normality distributions (see Appendix H: Figure 3 and 5, Appendix I: Figure 3), but these were only minor and did not cause any concern over the distribution of the data within the subscales. As shown in the tables below (Table 3, 4 and 5), the skewness (-1.11 to .625) and kurtosis (-1.26 to .624) of subscales were within a tolerable range for assuming normal distribution, which lies between -1.2 and +1.2 following the threshold recommendations of DeCarlo (1997). Only two subscales were seen to be outside the parameters of kurtosis; FDSE (SE = -1.25) and FIOLI (SE = -1.26), however

these were only marginally lower than the threshold, and therefore raised no major concerns. Because a small sample size was used for the current study, the standard error of skewness and kurtosis was taken into consideration for the two mentioned subscales, which revealed that skew (SE = 0.43) and kurtosis (SE = 0.85) were both non-significant (SE < 1.96, $p > .05$), as per the recommendations of Field (2009).

Table 3.

Learning Style Descriptive Statistics and Reliability of Subscale Variables

Learning style	M	SD	Skewness	Kurtosis	Alpha
Independent	3.32	.48	.613	.602	.62
Dependent	3.62	.50	.165	.521	.66
Avoidant	3.34	.80	-.452	-.518	.85
Participant	3.14	.72	-.323	-.888	.85
Collaborative	3.72	.77	-1.11	.587	.87
Competitive	2.71	.55	.423	-.047	.68

Individually all items on learning styles scale showed reliability of >.80

Table 4.

Fear of Failure Descriptive Statistics and Reliability of Subscale Variables

Fear of failure Subscale	M	SD	Skewness	Kurtosis	Alpha
FSE	3.06	8.2	-.314	-.969	.92
FDSE	2.87	4.4	-.022	-1.25	.83
FUF	2.98	3.8	.391	-.461	.70
FIOLI	2.43	5.6	.448	-1.26	.90
FUIO	2.99	6.2	-.267	-1.01	.85
OF	2.87	4.8	.160	-1.03	.93

Individually all items on fear of failure scale are >.95
Note: FSE = fear of experiencing shame and embarrassment, FDSE = fear of devaluing ones self-estimate, FUF = fear of having an uncertain future, FIOLI = fear of important others losing interest, FUIO = fear of upsetting important others, OF = overall fear of failure

Table 5.

Perfectionism Descriptive Statistics and Reliability of Subscale Variables

Perfectionism Subscale	M	SD	Skewness	Kurtosis	Alpha
COM	2.5	1.1	.208	-1.11	.92
HSO	2.3	.74	.125	-1.09	.81
NFA	2.9	.96	-.115	-.734	.88
ORG	2.9	.94	-.266	-1.05	.91
PPP	3.0	.90	-.135	-.962	.89
PLAN	3.1	.83	-.342	.584	.87
RUM	2.5	.82	.625	.624	.86
SFE	2.9	.94	-.322	-.273	.88
CP Sum-scales	2.8	.75	-.118	-.806	.89
SE Sum-scales	2.7	.75	.278	-.282	.92
General Perfectionism	2.5	.65	.311	.106	.81

Individually all items on perfectionism scale are >.95
Note: COM = concern over mistakes, HSO = high standards for others, NFA = need for approval, ORG = organisation, PPP = perceived parental pressure, PLAN = planfulness, RUM = rumination, SFE = striving for excellence, CP = conscientious perfectionism sum scales, SE = self-evaluative perfectionism sum scales

4.2. Reliability Statistics

Cronbach's alpha tests were computed on all scales, as well as the sub-scales for each. Overall the three scales generally showed to have good reliability. Reliability coefficients for the GRLSS subscales are reported above in Table 3. The subscales had internal consistencies that were generally close to the recommended criterion level of .70 (Nunnally, 1978), with ranges from below average (α = .62) to high (α = .87). Three subscales did fall below the recommended alpha – Independent, Dependent and Competitive. Upon closer inspection, the correlation coefficients between the individual items were low in significance. For instance, within the Dependent subscale, item 16 and item 22 did not significantly inter-correlate with any other item. On both the Independent and Competitive subscales, a number of

items only showed very small correlations, and this was only with one or two other items.

Reliability coefficients for the fear of failure scale and PI scale are reported in Table 3 (fear of failure) and Table 4 (PI), and have the highest reliability. Cronbach's α for both = .96, with subscale scores ranging from .70 to .93 for the fear of failure scale, and .81 to .92 for the PI scale. Only one subscale (FUF) stood out as having lower internal consistency compared to other subscales in the PI and fear of failure scales, however this was still within the recommended criterion level (α = .70).

4.3. Correlational statistics

An initial analysis was carried out for each of the scales, which indicated that the subscales for the PI and PFAI were sufficiently intercorrelated with the scale they belong to. Intercorrelations of the three dimensions within the GRLSS scale show that only the avoidant-participant subscale was significantly correlated ($r = .628$, $p < 0.01$). The independent-dependent dimension ($r = 0.25$, $p > 0.05$) and the collaborative-competitive dimension's ($r = 0.15$, $p > 0.05$) were not significantly correlated.

Bivariate correlations were computed for all the variables in question. These included the six learning styles from the GRLSS, the subscales of the PFAI and the subscales of the PI. In order to investigate the second question of this study – is there a relationship between fear of failure and perfectionism in a sample of non-competitive street-sport participants – correlations between the PFAI and PI scales were analysed. Results showed that it was the negative aspects of perfectionism that were mainly correlated with fear of failure. Both COM and NFA showed large-sized correlations with all aspects of fear of failure, whereas other perfectionism subscales showed more differentiated relationships. Cohen (1992) defines $r = .10$ as a small-sized, $r = .30$ a medium-sized and $r = .50$ as a large-sized effect. Accordingly, RUM showed a medium-sized correlation with FSE ($r = .38$), and a relatively large-sized correlation with FIOLI ($r = .49$). Both FUF ($r = .42$) and FUIO ($r = .40$) were moderately correlated with PPP (see Table 6).

Table 6. *Correlation Matrix of the Target Variables for Fear of Failure and Perfectionism*

Subscale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. FSE	1																
2. FDSE	.782**	1															
3. FUF	.735**	.707**	1														
4. FIOLI	.759**	.727**	.723**	1													
5. FUIO	.768**	.661**	.656**	.701**	1												
6. OF	.920**	.881**	.860**	.891**	.855**	1											
7. COM	.687**	.611**	.598**	.798**	.529**	.736**	1										
8. HSO	0.30	0.20	0.19	.401*	0.02	0.26	.630**	1									
9. NFA	.704**	.624**	.573**	.717**	.477**	.707**	.876**	.535**	1								
10. ORG	0.24	0.10	0.04	0.13	-0.09	0.10	.418*	.688**	.395*	1							
11. PPP	0.24	0.25	.419*	0.25	.397*	0.35	0.20	-0.17	0.27	-0.07	1						
12. PLAN	-0.11	-0.27	0.29	0.07	-0.14	-0.18	0.24	.543**	0.16	.574**	-0.27	1					
13. RUM	.381*	0.34	0.31	.487**	0.10	.377*	.778**	.688**	.775**	.524**	0.24	0.36	1				
14. SFE	0.33	0.16	0.15	0.35	0.07	0.25	.676**	.768**	.612**	.752**	-0.07	.658**	.749**	1			
15. CPSS	0.22	0.06	0.02	0.25	-0.04	0.12	.565**	.855**	.492**	.880**	-0.16	.800**	.670**	.923**	1		
16. SESS	.641**	.580**	.604**	.716**	.485**	.690**	.902**	.529**	.917**	.394*	.522**	0.15	.865**	.613**	.489**	1	
17. GP	.501**	.369*	0.36	.561**	0.26	.473**	.850**	.802**	.816**	.738**	0.21	.551**	.890**	.890**	.862**	.863**	1

Regarding the third research question, asking if a relationship exists between fear of failure and learning styles, bivariate correlations were used to investigate these two constructs. Learning styles and fear of failure, results showed a range, suggested by Cohen (1992), of weak (r = 0.13, p > 0.05) to strong (r = .686, p < 0.01) correlations (shown in Table 7). Based on the results of the correlation analysis, fear of failure was shown to be related to avoidant, participant and collaborative learning styles. Collaborative learning showed a definitive pattern that was inversely related to all aspects of fear of failure, being significant at the 0.01 level. The more collaborative participants were in their learning style, the less likely they were to experience all fears of failing, including overall fear of failure.

The results of avoidant and participant learning were slightly less decisive. Avoidant learning was only moderately related to three aspects of fear of failure (fear of devaluing ones self-estimate, fear of an uncertain future and fear of upsetting important others), and was significant at the 0.05 level. Participant learning was inversely correlated with fear of devaluing ones self-estimate and fear of important others losing interest and significant at 0.05 level, but positively correlated with fear of upsetting important others, and significant at the 0.01 level. Particularly, those that were more avoidant learners, were more likely to experience fears of devaluing their self-estimate, fears of having an uncertain future and a fear of upsetting important others. Participant learners showed an opposite relationship than avoidant learners in that they were less likely to experience fears of devaluing their self-estimate, however they did also show greater fears of upsetting important others, similar to the avoidant learners. The remaining learning styles were not significantly correlated with any of the fear of failure subscales.

Table 7.

Correlation Matrix of the Target Variables for Learning Styles and Fear of Failure Scales.

Subscale	1	2	3	4	5	6	7	8	9	10	11	12
1. Independent	1											
2. Dependent	0.25	1										
3. Avoidant	0.01	-0.16	1									
4. Participant	.428*	.405*	.628**	1								
5. Collaborative	0.35	0.28	-0.32	.713**	1							
6. Competitive	0.21	.378*	0.19	0.23	0.15	1						
7. FSE	0.13	0.18	0.20	-0.21	-.569**	0.25	1					
8. FDSE	-0.15	0.00	.397*	-.433*	-.670**	0.24	.782**	1				
9. FUF	0.05	0.09	.414*	.027	-.566**	0.31	.735**	.707**	1			
10. FIOLI	-0.13	0.08	0.24	-.319	-.625**	0.26	.759**	.727**	.723**	1		
11. FUIO	-0.15	0.01	.435*	.546**	-.594**	-0.07	.768**	.661**	.656**	.701**	1	
12. GF	-0.06	0.09	.376*	-.436*	-.686**	0.23	.920**	.881**	.860**	.891**	.855**	1

* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

As seen in Table 8, competitive learning resulted in the strongest correlations with perfectionism. Both sum scales were positively correlated with competitive learning, however SESS was significant at the 0.01 level, whereas conscientious perfectionism was only significant at the 0.05 level. Overall, competitive learning was more positively correlated with the negative aspects of perfectionism. Participant learning was positively correlated with the more positive aspects of perfectionism (HSO, ORG, PLAN, SFE and CPSS). Dependent learning was also positively correlated with the positive rather than negative aspects of perfectionism. However, these did not generate results as significant as the participant findings. Surprisingly, collaborative learning did not correlate with perfectionism as much as it did with fear of failure. An inverse correlation was evident with need for approval and collaborative learning, and a positive correlation with planfulness. Both correlations were significant only at the 0.05 level.

Table 8. *Correlation Matrix of the Target Variables for Learning Styles and Perfectionism Scales*

Subscale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.Independent	1																
2.Dependent	0.25	1															
3.Avoidant	0.01	-0.16	1														
4.Participant	.428**	.405*	-.682**	1													
5.Collaborative	0.35	0.28	-0.32	.713**	1												
6.Competitive	0.21	.378*	0.19	0.23	0.15	1											
7.COM	0.03	0.25	0.04	0.00	-0.36	.465*	1										
8.HSO	0.30	.374*	-0.25	.487**	0.28	.546**	.630**	1									
9.NFA	0.06	0.24	0.10	0.04	-.377*	.517**	.876**	.535**	1								
10.ORG	0.31	0.21	-0.31	.518**	0.27	0.35	.418*	.688**	.395*	1							
11.PPP	0.09	-0.01	0.35	-0.32	-0.25	-0.03	0.20	-0.17	0.27	-0.07	1						
12.PLAN	0.29	0.34	-0.23	.504**	.425*	0.17	0.24	.543**	0.16	.574**	-0.27	1					
13.RUM	0.33	0.33	-0.05	0.31	-0.06	.589**	.778**	.688**	.775**	.524**	0.25	0.36	1				
14.SFE	0.27	.458*	-0.32	.530**	0.15	.490**	.676**	.768**	.612**	.752**	-0.08	.658**	.749**	1			
15.CPSS	0.34	.398*	-0.32	.590**	0.32	.447*	.565**	.855**	.492**	.880**	-0.16	.800**	.670**	.923**	1		
16.SESS	0.14	0.25	0.13	-0.02	-0.34	.480**	.902**	.529**	.917**	.394*	.522**	0.15	.865**	.613**	.489**	1	
17.GP	0.28	.378*	-0.11	0.34	-0.01	.537**	.850**	.802**	.816**	.738**	0.21	.551**	.890**	.890**	.862**	.863**	1

4.4. Regression Analysis

Multiple linear regression analysis was conducted in order to examine the extent that learning styles was able to explain the variance of fear of failure and perfectionism. To determine whether the assumptions of normality, linearity and homoscedasticity were met, the use of residual scatterplots were employed (Tabachnick & Fidell, 2013). All assumptions for learning styles, overall fear of failure and general perfectionism were met.

Three sets of regression analyses were computed. First, the six different learning styles were investigated to see which of them made unique contributions to overall fear of failure scores (see Table 9.) Results showed that collaborative learning had the most significant regression weights. After collaborative learning, competitive was the only other learning style that made any significant contribution (see Model 2 in Table 9). Regression results were comparable to correlation coefficients, which also showed that collaborative and competitive learning were most significantly related to fear of failure. Collaborative learning explained around 45% of the variance for overall fear of failure. Competitive learning showed a further 10% increase in the variance on top of collaborative learning. Cohen (1992), considers $f^2 = .02$ to have a small, $f^2 = .15$ a medium, and $f^2 = .35$ a large effect for multiple regressions. This suggests that collaborative learning was able to explain a significant proportion of variance in overall fear of failure. A decrease in collaborative learning predicted a strong increase in overall fear of failure ($B = -.865$, $T = -4.89$, $p = .000$). Accordingly, learning street-sports in a more collaborative manner resulted in lower fears of failing, while being a more competitive learner led to higher fears of failing.

Table 9.

Regression Analysis for Predictors of Overall Fear of Failure

Variables	Model 1	Model 2
	β	**β**
Independent	.21	.15
Dependent	.30	.20
Avoidant	.18	.09
Participant	.11	.02
Collaborative	-.69**	-.74**
Competitive	.34	.34*
	R^2 = .45	**R^2 = .55**
	SE = .71	**SE = .65**
	$F(1, 27)$ = 23.98**	**$F(2, 26)$ = 17.95****

Is significant at the *$p \leq .05$, **$p \leq .01$

Note: due to a small sample size, adjusted R^2 scores are reported in regression table (Field, 2013).

The second regression analysis investigated the relationship between learning styles and perfectionism. Two separate regressions were run, one for each of the perfectionist sum scales. Learning styles were firstly regressed against conscientious perfectionism (see Table 10). Model 1 shows the learning style that predicted the highest variance in fear of failure scores. Model 2 shows the learning style that was able to add to the explanation in variance over and above what had already been explained. Results showed a slightly differing pattern between the conscientious and self-evaluative perfectionism regression models. Whereas competitive learning predicted both conscientious perfectionism (f^2 = .33) and self-evaluative perfectionism (f^2 = .48), participant learning was only a strong predictor for conscientious perfectionism (f^2 = .59) and collaborative learning only a moderate inverse predictor for self-evaluative perfectionism (f^2 = -.42). Independent and dependent learning styles did not contribute to any of the multiple regression models.

Table 10.

Regression Analysis for Predictors of Perfectionism Sum Scales

Variables	Model 1	Model 2
	β	**β**
CPSS		
Independent	.11	.06
Dependent	.19	.09
Avoidant	.14	-.09
Participant	.59**	.51**
Collaborative	-.21	-.20
Competitive	.33*	.33*
	R^2 = .32	**R^2 = .41**
	ΔR^2 = .32	**ΔR^2 = .41**
	$\Delta F(1, 27)$ = 14.40**	**$\Delta F(2, 26)$ = 10.69****
SESS		
Independent	.05	.21
Dependent	.09	.21
Avoidant	.05	-.11
Participant	-.12	.36
Collaborative	-.42	-.42*
Competitive	.48**	.54**
	R^2 = .23	**R^2 = .40**
	ΔR^2 = .20	**ΔR^2 = .36**
	$\Delta F(1, 27)$ = 8.10**	**$\Delta F(2, 26)$ = 8.74****

Is significant at the $^*p \leq .05$, $^{**}p \leq .01$

Note: CPSS = conscientious perfectionism sum scales, SESS = self-evaluative sum scales

4.5. Moderation Analysis

To test the hypothesis that perfectionism influences the relationship between learning styles and fear of failure, moderation using hierarchical multiple regression analysis was conducted (see Table 11). Four regressions were computed, using the two predictors that accounted for a significant amount of variance in fear of failure (collaborative and competitive learning). Table 11 shows that neither of the interaction terms produced a significant increase in variance in fear of failure, rejecting the hypothesis that perfectionism moderates the relationship between Collaborative learning and fear of failure. With low power due to a small sample size, moderation analysis was taken a step further to examine whether positive and negative perfectionism moderated the relationship between learning styles and each of the five fear of failure subscales. Results

indicated that like overall fear of failure, perfectionism did not significantly moderate the effect of learning styles on any of the fear of failure subscales.

Table 11.

Effects of Learning Styles on Fear of Failure Moderated by Perfectionism

Predictor Variable	Subscale	Moderator	β	*SE*	*P-value*
Collaborative learning	Overall fear of failure	CPSS	.350	.288	.236
		SESS	.060	.214	.782
	FSE	CPSS	.467	.390	.243
		SESS	.000	.322	.999
	FDSE	CPSS	.309	.365	.406
		SESS	.178	.289	.544
	FUF	CPSS	.400	.374	.295
		SESS	.173	.281	.544
	FIOLI	CPSS	.334	.348	.347
		SESS	-.034	.274	.901
	FUIO	CPSS	.241	.388	.540
		SESS	-.017	.312	.956
Competitive learning	Overall fear of failure	CPSS	.160	.421	.258
		SESS	-.302	.260	.707
	FSE	CPSS	-.143	.506	.780
		SESS	-.458	.335	.184
	FDSE	CPSS	-.204	.481	.674
		SESS	-.553	.332	.108
	FUF	CPSS	.445	.408	.285
		SESS	-.134	.304	.663
	FIOLI	CPSS	.211	.502	.679
		SESS	-.242	.311	.443
	FUIO	CPSS	.492	.447	.281
		SESS	-.121	.317	.706

*p-value significant at 0.05 level

Note: FSE = fear of experiencing shame and embarrassment, FDSE = fear of devaluing ones self-estimate, FUF = fear of having an uncertain future, FIOLI = fear of important others losing interest, FUIO = fear of upsetting important others.

4.6. Mediation Analysis

To test whether conscientious and self-evaluative perfectionism mediated the effect between learning styles and fear of failure, mediation analyses using regression were run using the Baron and Kenny (1986) method. To compute zero-order correlations and regression scores, the Jose online computation method (Jose, 2013) was then used. Results revealed that perfectionism did not at all

mediate the relationship between collaborative learning and overall fear of failure or any fear of failure subscales. All Sobel z-scores were non-significant. Results of the mediating effect of conscientious perfectionism on the relationship between competitive learning and fear of failure revealed that conscientious perfectionism did not mediate the effect of variance between competitive learning and fear of failure. All Sobel z-scores were above the 0.05 level. Regarding the effect of self-evaluative perfectionism on competitive learning, all Sobel z-scores for overall fear of failure, as well as all aspects of fear of failure were under the 0.05 level. However, the lower 95% confidence interval included scores of 0 for all subscales, rendering them non-significant, except fear of having an uncertain future. The relationship between competitive learning and fear of having an uncertain future was mediated by self-evaluative perfectionism (Sobel z-value = p = 0.03). The bootstrapped unstandardized indirect effect was .51, and the 95% confidence interval ranged from .04 to .96. Thus, the indirect effect was statistically significant. As Figure 3 illustrates, the standardized regression coefficient between competitive learning and self-evaluative perfectionism was statistically significant, as was the standard coefficient between self-evaluative perfectionism and fear of having an uncertain future.

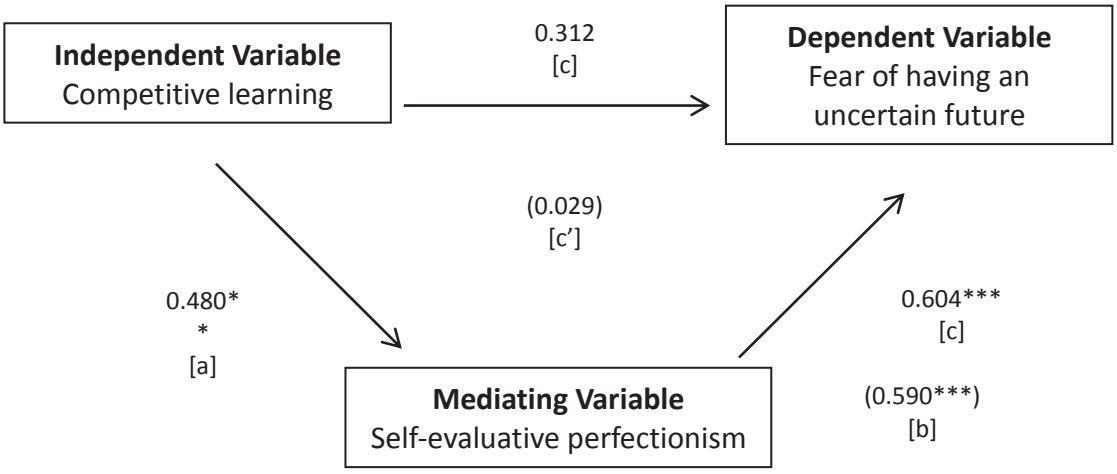

Figure 3. Standardized regression coefficients for the relationship between competitive learning and fear of having an uncertain future as mediated by self-evaluative perfectionism.

5. Discussion

5.1. Summary of the Findings

The main objectives of this study were to build upon the literature of fear of failure in a sport setting. This was achieved in two parts: firstly by introducing the construct of learning styles, which has not previously been studied as a direct relationship to fear of failure, and secondly, by adding to the existing findings that show a consistent relationship between fear of failure and perfectionism. Learning was studied with regards to participant's preference for a particular style. The six styles investigated were independent, dependent, participant, avoidant, collaborative and competitive (Riechmann & Grasha, 1974). Participants in this study demonstrated a preference for collaborative learning, with competitive learning being their least preferred. Additionally, the more collaborative participants were, the lower they scored on the fear of failure scale. Eight aspects of perfectionism were investigated; concern over mistakes, high standards for others, need for approval, organisation, perceived parental pressure, planfulness, rumination and striving for excellence (Hill et al., 2004), and five aspects of fear of failure; fear of shame and embarrassment, fear of devaluing ones self-estimate, fear of having an uncertain future, fear of upsetting important others and fear of important others losing interest (Conroy, 2002). Correlational analysis indicated that concern over mistakes and need for approval were the only perfectionist traits related to all aspects of fear of failure. Organisation, planfulness and striving for excellence were not significantly related to any aspects of fear of failure, including overall fear of failure.

Regarding overall fear of failure, Collaborative learning was able to inversely predict how likely participants were to experience fears of failing, and Competitive learning predicted an increase in overall fear of failure. Competitive learning was able to act as a predictor both for conscientious perfectionism and self-evaluative perfectionism. In addition, Collaborative learning only moderately acted as an inverse predictor for self-evaluative perfectionism, and Participant learning

predicted conscientious perfectionism. Finally, when moderation and mediation analyses were conducted to further investigate the relationship between fear of failure and learning styles, results indicated that perfectionism was not a significant moderator. It was however discovered that self-evaluative perfectionism significantly mediated the effect between competitive learning and fear of having an uncertain future.

5.2. Findings Explained

5.2.1 Learning Styles

The present research has revealed that street-sport participants are typically collaborative learners, more dependent and prefer to be avoidant rather than participant learners. Given that the environment of street-sports is generally non-competitive and allows participants to practice at their own leisure without the pressures of achieving specific expectations, this indicates a suitable environment to foster the development of collaborative learners. It also supports motivational theories that stipulate learners will choose an environment that specifically suits their preference for learning style (Deci & Ryan, 1991).

Riechmann and Grasha (1974; 1989) describe Collaborative learners as being able to learn better when they are sharing their ideas and talents, while working in groups. The emphasis on this learning style is on interpersonal behaviour rather than performance outcome. The street-sports in this study: parkour, skateboarding and BMX are all sports that can be individually practiced, yet more often than not are seen being practiced in sub-groups. Parkour for instance, is described by Clegg and Butryn (2012) as a "social and interactive experience" (p. 329) where engaging with one's surroundings, including both objects and peers, is an essential element. More importantly, street-sport participants describe the groups they practice within as being 'non-hierarchical' (Gilchrist & Wheaton, 2011; Turner, 2013), where the emphasis is not on coach-athlete interaction but instead on peer

interactions. This makes a street-sport environment conducive to collaborative learning, which is achieved best with cooperative practice.

Another essential point to learning in a collaborative environment is that for youth to benefit from improved self-esteem and self-worth, the mainstream competitive and ego-centred characteristics of organised sports may not be as supportive for such concepts. In fact, a number of studies have shown that competitive anxiety (experienced prior to competition) has been linked to low self-esteem (Edwards et al., 2007; Frost & Henderson, 1991), suggesting that only those who have high self-esteem will have the necessary resilience to cope with the pressures of competitive environments. Because self-worth represents a core facet of successful performance, it is perhaps one of the most affected aspects in competitive situations. Instead, the current research advocates for a learning environment where intrinsic motivation is more likely to develop through self-controlled learning, which in turn may positively improve overall self-worth for a wider range of youth (Bund & Wiemeyer, 2004).

5.2.2. Fear of Failure and Perfectionism

It is difficult to discern a causal pathway in the current study between learning styles and fear of failure and perfectionism. Although there is statistical evidence that learning styles significantly contribute to the variance of fear of failure and perfectionism, there is previous evidence to suggest that learning styles are context specific and influenced by different environments (Hansen et al., 2003). Hayes and Allinson (1993) argue that a learning style is an interaction between person and environment, where behaviour is a function of this interaction. Based on this theory, learning styles are more likely to influence fear of failure or perfectionism only when in a particular environment. However, other researchers (Cassidy, 2004) have theorized that learning style is an optional construct based on a person's individual personality traits. Furthermore, fear of failure and perfectionism may both have influential properties involved in developing learning styles. Given the complexity of the three constructs in this study, a bidirectional

relationship may be occurring with learning styles and fear of failure and learning styles and perfectionism. In the street-sport sample, perfectionism and fear of failure did not show as strong a relationship as previous studies have. However, because the scales that were used to measure these constructs were not conclusively context-specific, it is possible that rather than being conducive only to this environment, a weaker relationship between perfectionism and fear of failure exists for street-sport participants across other contexts.

The results of the current study reveal information in regards to street-sport participants, as well as how a particular learning style may influence sport environment preferences. Observations reveal that street-sport settings are peer-oriented, collaborative environments, where learning occurs via cooperative means. Participants work together, both teaching and learning from each other, and as a result, collaborative peers are less likely to feel shame or embarrassment, less likely to see failure as a threat to their self-worth and less likely to feel pressure from important others. This corroborates findings from Duda, (2001) who found that female soccer players who valued cooperative effort and perceived collaborative learning as a focal point in their sports environment viewed team mates as being 'important co-workers' and were less likely to feel pressured to outperform teammates. Conversely participants who preferred competitive learning were more likely to be negatively affected by fear of failure. It is possible that working with peers in a non-hierarchical environment means that participants feel more comfortable learning new skills without the pressures of having to perform perfectly.

Previous studies have shown that all aspects of perfectionism have correlated with the different fears of failure (Conroy et al., 2007; Sagar & Stoeber, 2009), which indicates a much stronger relationship between the two constructs than is evident in the current study. Three reasons may account for the decreased link between fear of failure and perfectionism in this research. First, the statistical power of the findings is low due to the sample size. Having a small sample reduces the chance of a true effect being detected (Faul, 2009). If the sample size was increased, it may yield different results that are more in-line with previous studies. Second, this type

of research is usually done in a competitive sport setting where a strong link exists between competitiveness and perfectionism, and where fear of failure is more evident (Dunn, et al., 2006). Because this is the first study that looks at fear of failure and perfectionism with non-competitive sports, it is likely that the relationship between perfectionism and fear of failure is not as straight forward as it has been previously reported. Lastly, the argument of whether perfectionism and fear of failure are stable or dynamic traits remains unclear. At least at one point in the literature, both these concepts have been advocated as dynamic traits that are context specific (Conroy et al., 2007; Frost et al., 1990). It would therefore be implausible to know for sure whether the lack of relationship was specific to personality types of this study's cohort, or whether it was specific to the environment of street-sports.

While the findings of this study do indicate that a relationship exists between fear of failure and perfectionism in general, it is also important to look at the individual subscales of each of the measurements. Although this is the first study that compares scores on the PFAI and PI, the PFAI has been popularly used as a comparison to perfectionism (Conroy et al., 2007; Sagar & Stoeber, 2009). A closer inspection also revealed that other measures of perfectionism used in these studies convincingly compare to the PI. The current study does support previous findings (Conroy et al., 2007; Sagar & Stoeber, 2009), that show it is negative rather than positive aspects of perfectionism that are related to fear of failure. Such negative characteristics of perfectionism consistently include concern over mistakes and parental pressure, and negative reactions to imperfection. This study showed that self-evaluative perfectionism was more strongly associated with all aspects of fear of failure, than conscientious perfectionism. This was further evidenced through mediational analysis that revealed self-evaluative perfectionism (perfectionist concerns) mediated the relationship between competitive learning and fear of having an uncertain future. Self-evaluative perfectionism includes concern over mistakes, need for approval, perceived parental pressure and rumination, and is used to measure perfectionist concerns.

In regards to the different dimensions of fear of failure, the one that participants scored the highest in was FSE. This is in line with previous research where FSE seemed to also be the main concern for sport participants (Conroy et al., 2002). Researchers that have looked at the relationship between perfectionism and fear of failure, have posited that perfectionists measure their self-worth in terms of achievement, are overly critical of their behaviour when failing, and are therefore prone to experiencing shame and embarrassment (Sagar & Stoeber, 2009). Moreover, all five aspects of fear of failure have shown positive correlations with negative emotions and low self-worth (Kaye et al., 2002). This suggests that a person's self-worth may be affected more following failure, when they have perfectionistic traits. It would be useful for future studies involving street-sport participants, to include self-worth as a measurable construct.

Interestingly, the findings that youth involved in street-sport are more concerned with fear of experiencing shame than any other dimension in fear of failure, was somewhat unexpected. In the current study, instruments were not administered within a street-sport environment and furthermore did not include items that were specific to sport. Therefore, it would be difficult to make assumptions about the type of environment participants had in mind at the time of their response. For youth involved in competitive sports, they may relate failing to an environment, where success and failure are more distinct. Sagar and Stoeber (2009) found that perceived coach pressure was the most important factor in determining fear of experiencing shame and embarrassment in competitive athletes, yet in an environment like street-sports where coaches and authoritative figures are generally absent, fear of experiencing shame and embarrassment was still found to be the main concern about failing. However, given the nature of street-sports, and that success and failure are not definitively characterised by win or loss factors, this environment may not be one that they associate with achievement. It is likely then, that responses to the fear of failure measurement may well reflect self-beliefs in a school environment, where success and failure are more apparent. Furthermore, youth are likely to experience fears relating to shame and embarrassment, more so than other age groups (Gullone, & King, 1993). Therefore, though fear of failure may be less of a threat to collaborative learners, fear of

experiencing shame and embarrassment may be heavily pertinent to this age group regardless.

In sum, the findings indicate that it is mainly concern over mistakes and need for approval (self-evaluative aspects of perfectionism), not conscientious perfectionism, that is linked to fear of failure in a street-sport environment. Whereas conscientious perfectionism appears to be a more positive aspect of perfectionism (Hill et al., 2003; Sagar & Stoeber, 2009), self-evaluative perfectionism is closely linked to fear of failure, and therefore may be related to negative outcomes of perfectionism. In this study, self-evaluative perfectionism was correlated with all fears of failing, and mediated the relationship between competitive learning and fear of having an uncertain future. The findings on learning styles reveal that collaborative learning predicts lower fears of failure, is able to explain a small portion of the variance in perfectionist concerns, but is not linked with perfectionist strivings. Competitive learning on the other hand has a weaker link with fear of failure, but is a strong predictor of perfectionist concerns, and moderately predicts perfectionist striving. Given that collaborative and competitive learning run along the same dimension – with the two being seen as opposite ends of the spectrum – it was expected that these two learning styles would have opposite predictability. However this was not entirely the case, and in fact the two learning styles were not significantly related to each other. Again this may be due to the small sample size in the current study.

The regression model used in the current study places fear of failure as the outcome variable, and the reasoning behind this will subsequently be presented. Firstly, approach-avoidance goals (Conroy & Elliot, 2004), positive-negative affect (Sagar & Stoeber, 2009) and factors involving family and environmental influences (McGregor & Elliot, 2005) have all been examined as predictors of fear of failure. The causation of these factors is yet to be confirmed, and it still remains unclear whether fear of failure develops as a result, or in spite of environmental factors. It has been suggested that fear of failure develops around the age of 5-9 years (McClelland, 1958), which would suggest that it is a longstanding concept, however a lack of longitudinal research on this topic means that it is still somewhat

ambiguous. Nevertheless, for the purpose of the current study it was determined that fear of failure would be the most dynamic variable, and therefore have the greatest variance. Perfectionism has been described as a stable trait (Gucciardi et al., 2012), and learning styles are said to be a result of an individual's preference based on their personality type (Cassidy, 2004). For this reason, it was assumed that these variables would be more stable, and therefore act as predictors. The findings of this study support previous studies (Conroy et al., 2007; Sagar & Stoeber, 2009) that suggest the relationship between fear of failure and perfectionism is bidirectional.

Secondly, according to Lazarus' (1991) cognitive-motivational-relational theory, fear of failure is a result of cognitive schemas about aversive consequences of not succeeding that are activated in situations where failure may occur. By this definition, fear of failure is context specific and therefore could be predicted by a learning style, which is explained in this study as more of a stable trait, relating to individuals personality traits. A lack of causality may be due to the limited experience in younger children. Without exposure to a range of different environments, the children in the younger age bracket of this sample (around the age of 10 years) may have limited schemas regarding the consequences of failing. Future research should consider comparing younger and older sample groups, to help clarify developmental stages of fear of failure within street-sport participants.

Regarding the moderation findings, results indicated that a pattern existed with the way in which perfectionism affected collaborative learning on fear of failure. Conscientious perfectionism increased the variance of change between collaborative learning and overall fear of failure scores as well as subscale scores. Neither perfectionist strivings nor perfectionist concerns moderated the relationship between competitive learning and fear of failure either.

It was likely that these effects were not significant due to the small sample size, as having a small sample limits the chances of detecting significant interaction effects (Frazier, Tix & Barron, 2004). The *R*-squared results from regression analysis indicated that only a small variance was explained by learning variables, but because of the small sample size, it was important to fully explore the data as much

as possible. Additionally, the fact that the relationship between fear of failure and perfectionism in this sample was inconsistent may have contributed to the lack of moderating or mediating affects via perfectionism.

Mediation results were much like the results found in the moderation analyses. Both conscientious and self-evaluative perfectionism did not mediate the relationship between collaborative learning and fear of failure, yet collaborative learning was the most significant predictor of fear of failure outcomes. These findings were somewhat expected given that collaborative learning was not substantially correlated with perfectionism. A pattern was evident in that collaborative learners were less likely to have high perfectionist concerns, but did show a positive pattern related to perfectionist strivings. These findings indicate that perhaps in a collaborative street-sport environment, fears around failing are not specific to the act of the actual sport, but involve more social factors. For instance, having no pressures to obtain success or perform in a certain way, would mean that the fear of failure that is experienced, could be a result of fears from other environments. An instrument that measures fears of failing more specific to a collaborative environment may help overcome these issues.

Further reasoning for the results of the mediator and moderator effects could be that perfectionists in previous studies involving team sports have been seen to have issues with their peers when they saw them as competitors (Ommundsen et al., 2005). Pressures to perform better than teammates results in increased competitive team dynamics. A street-sport setting is not an environment that would encourage perfectionism. As it has been mentioned, the focus is on cooperation and encouragement, and consequently there is less pressure to out-perform other participants within this sport. Consistent findings show that competitive athletes are less cooperative than recreational non-athletes (Gat & McWhirter, 1998), and that perfectionism is related to competitive traits (Hall, Kerr, & Matthews, 1998).

Measurements

The scales in the current research were intended primarily for use in a university student sample, and all normative scores are taken from samples made up of university students. Finding accessible scales that measured the constructs this study aimed to measure proved to be difficult for the following reasons: firstly, scales that measure learning styles or learning preferences are mainly aimed at learning in an academic setting. Secondly, in scales that do measure learning within a sports environment, these items tend to refer to factors such as competition, team roles/cohesion, and the role of coaches; all factors that are not a part of street-sports. Lastly, studies in which learning styles are measured are usually aimed at university age students. Therefore, the scales that measure the construct of learning are generally formulated to reflect this age group.

Before data collection began, all measurements were pilot tested on a young age range, comparable to the sample used, and it was determined that all scales were comprehendible. From the restricted number of instruments that seemed applicable to this research, the final scales that were used in the current study were believed to be the most appropriate. More to the point, because the current measurements (GRLSS, PFAI and PI) use language appropriate for university students, some of the wording in the scales was adjusted in accordance with the current sample group (e.g. item 4 on the GRLSS originally read 'facts presented in textbooks and lectures are usually correct' was amended to read 'facts presented in textbooks and classes are usually correct'). This shows that wording was only slightly adjusted enough to ensure participants were not confused at the use of 'lectures' when they had only experienced a classroom setting.

Adjustments were made only on the proviso that the intended meaning was not changed. Even with the adjustments, some of the items may not have applied to the current sample. For instance, item number 7 in the GRLSS reads 'my ideas about content are often as good as those in the textbook'. It is unlikely that youth – especially those under the age of 15 – would have had enough experience to feel

that they would know as much as the material covered in textbooks, and therefore these types of items may not be appropriate to such a young sample.

I would suggest that future research that looks at learning styles, aims to focus on youth around the ages of 10 to 16 especially, as this is an important developmental period. Furthermore, it is important that learning research incorporates preferences for learning styles as well as cognitive processes. The GRLSS adds further dimension by measuring learning style in accordance with learners approach to social interaction and level of engagement with learning (Riechmann & Grasha, 1974). These constructs are just as valuable as investigating how auditory versus visual learners differ.

5.3. Limitations

There are some limitations to the current research that must be taken into consideration when viewing the findings. The first involves sample composition. In order to gather data from 'authentic' street-sport participants it was essential to recruit from a natural setting, which involved visiting the places of practice for the specific sports. Because of the time limitations in the current study, and that recruitment took place at a number of skate-parks spanning the north island, a convenience sampling technique was utilised. This meant that only readily available participants at skate-parks or parkour meets at the time of recruitment were asked to participate. The extensive areas covered during recruitment also meant that majority of skateparks were only visited as a one off, and only for a short period of time. Future research could recruit from schools, as long as a specific exclusion criterion is established. This way the recruitment process would reach a larger number of potential participants. Careful consideration would need to be made to ensure that authentic street-sport participants were being recruited.

A second limitation of this study concedes that at the time of recruitment, it was observed that the street-sport culture was largely represented by a NZ/Maori ethnic group. This was certainly a subjective observation, and is not a result of

what has been stated in the literature. However, given that this is a New Zealand based study, it is believed by the researcher to be important to include. Only a limited number in comparison from this ethnic group actually participated toward the data that was collected. For a more reliable representation of street-sports, it is strongly suggested that future research endeavour to recruit a larger sample size, as well as addressing the inclusion of NZ/Maori ethnicity.

As a researcher, not being involved in the activity that is being researched can be a limitation in itself. It is not enough just to explain what your research intentions are, but rather it is important to get to understand them further before embarking on your study. For instance, Atkinson (2009) had 6 months of practice within the field of parkour, participating with and getting to know about what it means to be a *traceur* (a term given to those who practice parkour). It was this long before he understood the true essence of parkour. Being a new sample group that I had not before had experience with, I found that I was faced with unexpected obstacles during the recruitment process. As previous researchers have mentioned (e.g. Beal, 1995; 1996; Clegg and Butryn, 2012; Wheaton & Beal, 2003), it can be valuable in the practice of research to be able to build a rapport with potential participants. Not only is this beneficial for the researcher and the participants, but also for encouraging participants to provide the most valuable data possible. When attempting to recruit kids from a street setting, it can be a delicate process that requires careful pre-planning, and is less likely to encourage young kids to participate in research. If research was conducted in a school environment – where they are already familiar with completing activities similar to the self-report questionnaires – this may improve the likelihood that questionnaires were completed and returned to the researcher.

The current research generated a relatively low response rate of 25%, resulting in a limited data sample, with possible understated results. As a power analysis predicted, for a significance level of alpha = 0.05, a medium effect size (0.30) and to achieve a power of 0.80, a total sample size of 89 subjects is required. In order to generalize the results to a larger population, and avoid the possibility of a type II error, a quantitative research design such as this one would benefit from random

sampling, allowing all members of the population (those that regularly participate in street-sports) a chance to participate. Recruitment via schools may yield a larger sample number, as well as be a safer environment that ensures the participants feel comfortable about the process, as well as the intentions of the research. Recruiting from schools may also encourage participation or allow for forms to be completed closer to the recruitment stage, rather than having to wait for the forms to be sent to their home address. Recruiting through schools may also encourage parents to consent to their child's participation as they know where the research is coming from.

A fourth limitation related to the questionnaires that were used to measure the variables. It may be more effective to test the variable constructs within this study, specific to the street-sport environment. The scales that were used to measure fear of failure and perfectionism were not specifically designed for academic purposes, however they do include items that pertain to such a setting. For instance, the perfectionism inventory includes items like 'my work needs to be perfect in order for me to be satisfied', and the performance failure appraisal inventory includes items such as 'when I am failing, it is often because I am not smart enough to perform successfully', implying that such items relate to schoolwork. Given that these measures were self-report questionnaires, it is difficult to discern participant's cognitions at the time, and such questions could influence them to have their schooling environment in mind when completing the forms. In retrospect, it would have been more beneficial to include a statement on each form that instructed participants to think in particular to a situation when they are practicing their sport, which may have helped ensure that the data was context specific. Furthermore, the measurements were not specifically designed for use with youth, particularly as young as those under 15 years old. Although pre-testing confirmed that the measurements appeared to be age-appropriate, careful consideration should be given when interpreting the results.

5.4. Implications and Directions for Future Research

The findings of this research have important implications for understanding fear of failure in the non-competitive environment that street-sports provide. They demonstrate that youth who practice sports in an environment that encourages collaborative learning, may be less likely to experience fear of failure, and have less negative perfectionist concerns. The current study further supports previous findings that negative aspects of perfectionism and fear of failure are related, and therefore contributes to the literature on the interaction of fear of failure and perfectionism in a sports context. Moreover, research has indicated that the way in which youth prefer to learn, may contribute to their motivation to participate (Black & Deci, 2000; Linnenbrink, 2005; Ommundsen et al., 2005). Therefore, the current study builds upon literature pertaining to motivation, by identifying the different style of learning that street-sport participants show a preference for. Future research should look at learning with street-sport participants in comparison to competitive sport participants. As it currently stands, the research has only investigated the experience of a random sample in one learning approach compared to another learning approach (Christophel, 1990; Covington & Müeller, 2001; Goodenow, 1993; Pintrich, 2004).

Learning during youth development

An essential requirement for positive youth development is that researchers recognise the need for all youth to have opportunities that enable them to develop to their fullest potential. This requires a consideration of the diversity that constructs many communities, and embracing individuality. It is also essential to recognise and understand the unique issues of youth who gravitate more toward alternative activities that deviate from the mainstream. During youth development, individuals will go through adaptations in which they gain insight into their personal sense of identity (Catalano et al., 2004), as well as discovering their role as a member within a social group (Larson, 2000). The way in which this research contributes towards this understanding, is that it introduces an alternative way in

which youth can participate in sports, when they feel that the traditional or competitive sports are incompatible to their learning preferences. This is especially important for developing identity (Erikson, 1968). Youth are still in the process of self-identification at this stage, and can often experience feelings of 'not belonging', if they do not have opportunities to learn physically, psychologically and socially in environments appropriate to their needs (Deci & Ryan, 2000). If traditional sports are the only opportunity provided for participation in sports (as they are especially in some schools), this could be disadvantageous for not only the learning of sporting skills, but the development of individual identity as well. I propose that future research also looks at street-sport participants specifically and their motivational tendencies, fear of failure scores and learning styles within an academic environment as well. Demonstrating a collaborative learning style that is not conducive to a traditional sport setting, may also have implications for the way in which these youth prefer learning within schools. Though a street setting provides the cooperative learning environment needed for collaborative learners, the school setting is very different, and therefore imperative to explore for the likes of the participants in the current study.

The impact of fear of failure and perfectionism on youth

Fear of failure and perfectionist concerns are consistently shown as having an inverse relationship with positive personal aspects such as self-efficacy, well-being and life-satisfaction in both adolescents and adults (Caraway et al., 2003; Hill et al., 2010). The current study encourages sports researchers to look at alternative environments that may foster positive youth development, by way of supporting cooperative engagement with peers when learning sports skills. When a person's abilities are constantly being compared to the abilities of their peers, there is an increased risk that their self-esteem, confidence and self-worth will be negatively affected. If sports are an environment where a person is made to feel devalued because of peer-comparison, it is more than likely that decreased enthusiasm or withdrawal from participation will be the conceivable outcome. Such outcomes would discourage the positive elements of sports that sporting programs hope to achieve by encouraging youth involvement. It is therefore important that youth

feel comfortable practicing a sport that is suited to their learning style, and one that does not bring with it aversive consequences. For instance, shame and embarrassment are suggested to be public emotions (Tangney, Miller, Flicker & Barlow, 1996). In other words, having an audience to view failure when it occurs is a central component to fear of shame and embarrassment. This may mean that in order to avoid the emotional consequence of shame and embarrassment as a result of failing, youth will gravitate toward a sports environment where they are less likely to be observed with the same scrutiny that parents, coaches and other side-line supporters are seen to do in more organised competitive sports.

The current research specifically includes participants as young as 10 years of age, for the reason that fear of failure and perfectionism studies have typically involved university students or adults in their sample (e.g. Beery, 1975; Conroy, et al., 2007; Martin & Marsh, 2003). Such studies have neglected to address the crucial youth developmental period, where emotional consequences of failing could have debilitating effects on a person's self-worth (Lazarus, 2000). Subsequently, this leads to the uncertainty of what age shame and embarrassment are developed. Evidently in the current research, the fear of experiencing these emotions is not only apparent, but also comparative to scores of fear of failure in older participants (Conroy & Elliot, 2004), indicating that such a fear may already be eminently developed by the age of 10. Identifying an age where self-worth is most vulnerable would be an important area of research. As lower self-worth is what often leads to withdrawal from important activities like sport, identifying the inverse relationship between collaborative learning and fear of failure, could mean that collaborative learners are less likely to withdraw from sport participation. I therefore suggest the necessity to continue research into the impacts of fear of failure and motivational participation in a younger sample.

Self-evaluative perfectionism, also known as maladaptive perfectionism (Koivula, Hassmen, & Fallby, 2002), has an inverse relationship with self-worth (Frost & Henderson, 1991). It is also closely related to fear of failure, supporting the theory that fear of failure is linked to decreased self-worth. Furthermore, collaborative learners were less likely to feel that their self-worth would decrease following

failure, which suggests that a collaborate learning environment is most likely going to have a positive influence on self-worth. It is not certain whether it is the environment itself that influences fear of failure, but it is evident that a relationship exists. This provides good reason to further explore collaborative sports environments with regard to negative aspects of perfectionism and fear of failure, but in a way that is comparative to competitive sports.

Street-Sports

The unique environment of street-sports is both individual and integrative at the same time. Skateboarding, BMX and parkour are not team sports, yet the way in which they learn, is as though they have one common goal. Gat and McWhirter (1998) argue that cycling is a solitary sport and even though there is a proclivity to support the team, the majority of elite cyclists tend to be motivated by individual achievements and their own goals. It could be argued that in a similar manner, street-sports are also more of solitary sport. Motivation derives not from a sense of having to work to support team mates, but to achieve individual goals of achievement, whether those goals are directed towards mastering skills, landing tricks or simply enjoying the activity itself. However, even though the particular street-sports in this research are not team sports, the current study demonstrated that participants will still maintain a cooperative environment that is supportive and encouraging, rather than seeing peers compete against each other. This suggests that rather than the nature of the sport – being individual or team focused – learning is more concerned with the preference for the learner, rather than the activity they are involved in.

During the recruitment process, my observations of street-sports confirm the comradery that is seen in the practice of parkour, and at skate parks. One skateboarding event in particular – the free Summer Skate Series in Auckland – encouraged participants of all ages and skill levels to perform. The events were run by people who showed a passion for skateboarding as well as encouraging positive youth experiences. Although there were minor competitions organised, such as best trick, this was not the main focus of the events. When each participant was

given their time to skate, what I observed was inspiring encouragement from the organisers as well as participants that watched on from the side-lines. If a participant failed to land a trick, not only were they encouraged to try again, but instead of laughing or judging for mistakes made, they were cheered on simply for their attempt. As a participant of competitive sports myself, I had not previously experienced an environment that constituted such cooperative encouragement.

Although fear of failure is still present in street-sport participants, it appears that these participants will attempt to learn new skills even when initial success is not met. During the learning process, participants demonstrate a strong tendency to coalesce through a collaborative learning style. Consequently, this type of environment fosters what Putnam (as cited in Gilchrist & Wheaton, 2011) describes as *bonding capital* – "networks based on strong social ties between similar people" (p. 21). Furthermore, social and emotional bonds that are formed between peers are strengthened through the distinctive non-hierarchical structure that is seen in street-sports (Beal, 1996). Forming social relationships are a key area of interest for youth development programs, as it is believed that these relationships facilitate greater learning (Perkins & Noam, 2007). Moreover, the street-sport environment encourages self-directed learning, where participants can set their own standards and goals that they wish to achieve. These factors show that street-sports is a distinct learning environment that provides youth with differential benefits than the traditional competitive sports. For instance, street-sports encourages autonomy, which is described by Maslow (1970) as a fundamental need to foster positive youth development.

According to self-determination theory, (Deci & Ryan, 2000) the motivation to participate in a particular sport will be driven by psychological needs. For instance, one of the common psychological needs that Black and Deci propose is 'Competence'. By this theory, it would be assumed that a person will gravitate toward a sport they felt they were competent in. It would also denote that once a person felt they were not reaching competent standards in their sport, they may discontinue participation. In competitive sports, there is the added pressure of parents, coaches and teammates to obtain a certain standard. In street-sports,

there is no standard as such that appraises a participant as being competent. Instead it is a specification determined by the individual, and their personal construction of competency. It is likely that street-sport participants (being collaborative learners), could be vulnerable to the pressures of having to reach certain standards placed on them by others. As competitive sports are an environment contingent on succeeding, when feedback about failure is given, this would in turn elicit feelings of incompetence (Vallerand & Losier, 1999). With the self-determination theory (Black & Deci, 2000) in mind, it is possible that collaborative learners experience less fears of failure in a street-sport environment, as success in these sports is not marked by their level of competency.

An additional need in self-determination theory (Black & Deci, 2000), which is perhaps more pertinent to the street-sports environment, is 'relatedness' – the need to feel connected with significant others. The current study revealed data trends that were evident within this sample, demonstrating that relatedness exists amongst street-sport participants. Relatedness is integral to sport participation, as this is a setting were social bonds are formed and youth require a sense of belongingness, in order to achieve growth and integration. Both competency and relatedness are essential in facilitating positive social development and overall well-being. An environment that is supportive of these social needs, will also have a positive impact on self-motivation.

I advocate the importance of street-sports as collaborative learning environments for youth development in relation to their self-worth, quality of sports experience, continued participation and social development. I would encourage future research to investigate this assumption, and to focus on crucial developmental years in a person's life by directing more attention to a younger population who are likely to be more vulnerable than the older population. Youth workers that are interested in youth development in sport are in a position to be able to contribute to achieving such an outcome.

5.5. Conclusion

As a group, street-sport participants identified as preferring a collaborative learning style over the other five learning styles in the Grasha-Riechmann learning styles scale (1974). They also showed a tendency to prefer avoidant and dependent learning styles, however these were not as evidently favoured as collaborative learning. The findings of the current research have important implications for our understanding of fear of failure and perfectionism in sports, as well as how different sports environments to traditional sport, could foster youth development. The benefits of sport that have been covered extensively in the literature have helped shape the way in which sports are portrayed. With such considerable benefits, there needs to be more opportunity for a wider variety of people to participate. That is, sports should not be restricted to learning through environments where success is measured through competition, and research needs to broaden its scope to include the benefits that may be observable in collaborative learning environments as well.

This study suggests that these participants may not develop and perform as well in the environment of competitive sports, as this does not fit with their learning preference. Furthermore, because fear of failure and negative perfectionism scores were lower the more collaborative participants were, it is likely that the environment of street-sports is one that has beneficial qualities for youth who may be vulnerable to the adverse consequences of perfectionism and fear of failure. It is important to note that although perfectionist strivings may encourage better performance in sports settings, this should not necessarily be an essential focus for youth. It has been frequently demonstrated how perfectionist concerns can have negative consequences on youth development, such as negative impacts on self-worth and decreased enjoyment for an activity (e.g. Dunn et al., 2005; Dunn et al., 2006; Flett & Hewitt, 2005). This perhaps indicates that encouraging perfectionism in order to produce better performing athletes, is not as meaningful as encouraging improved well-being for youth, in order for them to reach their individual potential.

Those who are interested in improving positive youth development through sport, should consider establishing a first-hand understanding of the unique environments that street-sports are practiced in, and what these can provide in terms of positive social experiences for youth. Keeping in mind however, that one must not glorify the likes of BMX, skateboarding and parkour as being superior to traditional competitive sports, but merely as an alternative for the purpose of individual preferences that may not be suited to competitive sports. Indeed there is a great deal more that can be discovered about street-sports as a learning environment. Though sports organisation may feel they are attempting to provide as many opportunities for youth to participate in sport as possible, there may be alternative options that are currently overlooked. An understanding of what street-sports truly represents remains somewhat limited, and youth sports programs would benefit from further research in this area. Recognizing such limitations would be advantageous to reaching minority sports, and more importantly, expanding the opportunities that exist for youth sport participation.

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Appendices

Appendix A: Human Ethics Approval Letter

MASSEY UNIVERSITY
ALBANY

15 September 2014

Toni Gordon
c/- Dr Richard Fletcher
School of Psychology
Massey University
Albany

Dear Toni

HUMAN ETHICS APPROVAL APPLICATION – MUHECN 14/025
The benefits of street sports as a learning environment

Thank you for your application. It has been fully considered, and approved by the Massey University Human Ethics Committee: Northern.

Approval is for three years. If this project has not been completed within three years from the date of this letter, a reapproval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely

Dr Andrew Chrystall
Acting Chair
Human Ethics Committee: Northern

cc Dr Richard Fletcher

Te Kunenga ki Pūrehuroa
Research Ethics Office
Private Bag 102 904, Auckland, 0745, New Zealand Telephone +64 9 414 0800 ex 43279 humanethicsnorth@massey.ac.nz

Appendix B: Participant Questionnaire

MASSEY UNIVERSITY

THE BENEFITS OF STREET-SPORTS AS A LEARNING ENVIRONMENT

(Masters Project 2014)

Participant No. _____

Please answer the following questions to the best of your ability

1. What is your ethnicity? (Please tick the box(s) that apply to you)

☐ NZ/European
☐ NZ Maori
☐ Other
(*Please write what ethnicity this is*) _____

2. What is your age? _____

3. What is your main sport of participation (Please just choose one sport)

☐ Parkour
☐ Skateboarding
☐ BMX riding

4. How many times would you practice your sport per month?

☐ Less than once per month
☐ Once per month
☐ 4-6 times per month (about once a week)
☐ 8-12 times per month (2 or 3 times a week)
☐ Once a day

The following questions will ask about your attitudes and feelings towards the way you learn at school. There are no right or wrong answers, it is important that we know how you feel about each statement instead.
Please answer by choosing a number from **1 to 5**, and putting your answer on the line next to the statement.
The questions are designed to ask you to rate how you feel about each statement, and the rating scale below will tell you what each number means.

Put a **1** if you ***strongly disagree*** with the statement
Put a **2** if you ***disagree a little bit*** with the statement
Put a **3** if you ***do not know*** whether you agree or disagree with the statement
Put a **4** if you ***agree a little bit*** with the statement
Put a **5** if you ***strongly agree*** with the statement

1. I am confident in being able to learn important
2. I often daydream during class
3. Working with other students on class projects is something I enjoy
4. Facts presented in classes and in textbooks are usually correct
5. To do well, I have to compete with other students for the teachers attention
6. I am usually eager to learn about the subjects that are being taught in class
7. My ideas about subjects are often as good as those in class textbooks
8. Classroom activities generally are boring
9. I enjoy talking with other students about my ideas on class topics
10. Teachers are the best judges of what is important for me to learn in class
11. It is necessary to compete with other students to get a grade
12. Class sessions are usually worthwhile
13. I study what is important to me and not always what my teacher says is important
14. Hardly ever do I become excited about topics covered in class
15. I enjoy hearing what other students think about topics raised in class
16. Teachers should state exactly what they expect from students
17. During class discussions, I must compete with other students to get my idea across
18. I get more out of going to class than staying at home
19. Most of what I know, I learned on my own
20. I generally feel like 'I have' to attend class rather than like 'I want' to attend
21. Students can learn more by sharing their ideas with each other
22. I try to do my work exactly the way my teacher says it should be completed
23. Students have to become aggressive to do well in school
24. Everyone has a responsibility to get as much out of school as possible
25. I can work out for myself what is important in the stuff we learn in class

26. Paying attention during class sessions is difficult for me to do
27. I like to study for tests with other students
28. Teachers who let students do whatever they want are not doing their job
29. I like to get the answers or problems before anyone else can
30. Classroom activities generally are interesting
31. I like to develop my own ideas about class topics
32. I have given up trying to learn anything from going to class
33. The ideas of other students help me to understand class topics
34. Students need to be closely supervised by teachers on all class related projects
35. To get ahead in class, it is necessary to step on the toes of other students
36. I try to participate as much as I can in all aspects of class
37. I have my own ideas about how classes should be run
38. In most of my classes, I study just hard enough to get by
39. An important part of taking classes is learning to get along with other people
40. My notes contain almost everything the teacher says in class
41. Students hurt their chances for a good grade when they share their notes and ideas
42. Class assignments are completed whether or not I think they are interesting
43. If I like a topic, I usually find out more about it on my own
44. I typically study last minute for tests
45. Learning should be a cooperative effort between students and teachers
46. I prefer class sessions that are very organised
47. To stand out in my classes, I try to do assignments better than other students
48. I complete class assignments soon after they are given
49. I prefer to work on class related projects by myself
50. I would like teachers to ignore me in class
51. I let other students borrow my notes when they ask for them
52. Teachers should tell students exactly what material is going to be covered in a test
53. I like to know how well other students are doing on tests and class assignments
54. I complete required reading assignments as well as those that are optional
55. When I don't understand something, I try figure it out for myself before asking for help
56. During class, I tend to talk or joke around with people sitting next to me
57. Participating in small group activities in class is something I enjoy
58. I find teacher outlines or notes on the board very helpful
59. I ask other students in class what grades they received on tests and assignments
60. In my classes, I often sit towards the front of the room

The following questions will ask about your beliefs on what negative feelings you may experience when faced with failure.
There are no right or wrong answers, it is important that we know how you feel about each statement instead.
Please answer by circling a number from **-2 to +2**.
The questions are designed to ask you to rate how you feel about each statement, and the rating scale below tells you what each number means:

-2	-1	0	+1	+2
Do not believe at all	Believe just a little bit	Believe 50% of the time	Believe most of the time	Believe 100% of the time

1. When I am failing, it is often because I am not smart enough to perform successfully	-2	-1	0	+1	+2
2. When I am failing, my future seems uncertain	-2	-1	0	+1	+2
3. When I am, failing, it upsets important others	-2	-1	0	+1	+2
4. When I am failing, I blame my lack of talent	-2	-1	0	+1	+2
5. When I am failing, I believe that my future plans will change	-2	-1	0	+1	+2
6. When I am failing, I expect to be criticised by important others	-2	-1	0	+1	+2
7. When I am failing, I am afraid that I might not have enough talent	-2	-1	0	+1	+2
8. When I am failing, it upsets my “plan” for the future	-2	-1	0	+1	+2
9. When I am failing, I lose the trust of people who are important to me	-2	-1	0	+1	+2
10. When I am not succeeding, I am less valuable than when I succeed	-2	-1	0	+1	+2
11. When I am not succeeding, people are less interested in me	-2	-1	0	+1	+2
12. When I am failing, I am not worried about it affecting my future plans	-2	-1	0	+1	+2
13. When I am not succeeding, people seem to want to help me less	-2	-1	0	+1	+2
14. When I am failing, important others are not happy	-2	-1	0	+1	+2
15. When I am not succeeding, I get down on myself easily	-2	-1	0	+1	+2
16. When I am failing, I hate the fact that I am not in control of the outcome	-2	-1	0	+1	+2
17. When I am not succeeding, people tend to leave me alone	-2	-1	0	+1	+2
18. When I am failing, it is embarrassing if others are there to see it	-2	-1	0	+1	+2
19. When I am failing, important others are disappointed	-2	-1	0	+1	+2
20. When I am failing, I believe that everyone knows I am failing	-2	-1	0	+1	+2
21. When I am not succeeding, some people are not interested in me anymore	-2	-1	0	+1	+2
22. When I am failing, I believe that my doubters feel that they were right about me	-2	-1	0	+1	+2
23. When I am not succeeding, my value decreases for some people	-2	-1	0	+1	+2
24. When I am failing, I worry what others think about me	-2	-1	0	+1	+2
25. When I am failing, I worry that others may think I am not trying	-2	-1	0	+1	+2

The following questions will ask how much you value the importance of each of the statements below, that relate to perfectionism.
There are no right or wrong answers, it is important that we know how you feel about each statement instead.
Please answer by choosing a number from **1 to 5**, and putting your answer on the line next to the statement.
The questions are designed to ask you to rate how you feel about each statement, and the rating scale below tells you what each number means:

Put a **1** if you ***strongly disagree*** with the statement
Put a **2** if you ***disagree a little bit*** with the statement
Put a **3** if you ***do not know*** whether you agree or disagree with the statement
Put a **4** if you ***agree a little bit*** with the statement
Put a **5** if you ***strongly agree*** with the statement

1. My work needs to be perfect, in order for me to be satisfied
2. I am over-sensitive to other peoples comments
3. I usually let people know when their work isn't up to my standards
4. I am well organised
5. I think through my options carefully before making a decision
6. If I make mistakes, people might think less of me
7. I've always felt pressure from my parent(s) to be the best
8. If I do something less than perfectly, I have a hard time getting over it
9. All my energy is put into achieving a flawless result
10. I compare myself to others and often feel I'm not as good
11. I get upset when other people don't maintain the same standards I do
12. I think things should be put away in their place
13. I find myself planning many of my decisions
14. I am particularly embarrassed by failure
15. My parents hold me to high standards
16. I spend a lot of time worrying about things I've done, or things I need to do
17. I can't stand to do something halfway
18. I am sensitive to how others respond to my work
19. I'm not very patient with peoples poor excuses for bad work
20. I would characterise myself as an orderly or organised person
21. Most of my decisions are made after I have had time to think about them
22. I over-react to making mistakes
23. My parent(s) are difficult to please
24. If I make a mistake, my whole day is ruined
25. I have to be the best in every assignment I do

26. I'm concerned with whether or not other people approve of my actions
27. I'm often critical of others
28. I like to always be organised and disciplined
29. I usually need to think things through before I know what I want
30. If someone points out a mistake I've made, I feel like I've lost that person's respect in some way
31. My parent(s) have high expectations for achievement
32. If I say or do something dumb I tend to think about it for the rest of the day
33. I drive myself rigorously to achieve high standards
34. I often don't say anything, because I'm scared I might say the wrong thing
35. I am frequently aggravated by the lazy or sloppy work of others
36. I clean my home often
37. I need time to think up a plan before I take action
38. If I mess up one thing, people might start questioning everything I do
39. Growing up, I felt a lot of pressure to do everything right
40. When I make an error, I generally can't stop thinking about it
41. I must achieve excellence in everything I do
42. I am self-conscious about what others think of me
43. I have little tolerance for other peoples careless mistakes
44. I make sure to put things away as soon as I'm done using them
45. I tend to give careful thought before making up my mind
46. To me, a mistake equals failure
47. My parent(s) put a lot of pressure on me to succeed
48. I often obsess over some of the things I have done
49. I am often concerned that people will take what I say the wrong way
50. I often get frustrated over peoples mistakes
51. My closet is neat and organised
52. I usually don't make decisions on the spot
53. Making mistakes is a sign of stupidity
54. I always felt that my parent(s) wanted me to be perfect
55. After I hand in my homework I can't stop thinking of how it could have been better
56. My workspace is generally organised
57. If I make a serious mistake, I feel like I'm less of a person
58. My parents have expected nothing but my best
59. I spend a great deal of time worrying about other people's opinion of me

Appendix C: Information Letter to Parkour Organisation

The President

NZ Parkour Association

Dear Damien Puddle,

My name is Toni Gordon and I am a Psychology Masters student at Massey University doing research in the area of sport psychology. I am requesting your permission to invite members of your association to participate in my study. I am looking at recruiting participants aged 10 – 18 who practice parkour, and would be willing to help out with my research. The intent of my masters research is to investigate the possible benefits of participating in street sports for youth. I am interested in finding out more about the types of people that participate in sports in a non-organized setting

Participants that I recruit would be required to fill out a questionnaire which is expected to take approximately 30 minutes. Participants are not required to fill out these questionnaires at the time and questionnaires will be made available for participants to take home with them to complete at a later time.

Project Procedures

I will be doing my recruitment of participants in the Auckland and Wellington regions only. If permission is granted, myself and another female colleague would like to come along to a training session with the intent to hand out information forms and allow parkour enthusiasts the opportunity to volunteer in the participation of this research.

I am hoping for a minimum of 150 participants for this research, and believe it would be valuable to recruit through your organization. If you are not the person in charge of approving this type of request I would very much appreciate if you would forward the name and contact information of the person I should communicate with. I would welcome the opportunity to discuss this with you by phone if that would be helpful. In addition, I would be happy to provide any further information you may require in order to make a decision.

Project Contacts

Please contact me if you have any questions about this research

Researcher: Toni Gordon. I can be contacted on 021 0233 5056 or by email toni.teegee@gmail.com

My Supervisor Dr Richard Fletcher can be contacted by email r.b.fletcher@massey.ac.nz

Appendix D: Information Sheet for Participants

MASSEY UNIVERSITY

"The benefits that Street-sports can provide as a learning environment"

INFORMATION SHEET FOR PARTICIPANT

Project Description and Invitation
My name is Toni Gordon and I am a student at Massey University doing research in sport psychology. I would like to invite you to be a part of my research that looks at the positive benefits of street sport activities, including skateboarding, BMX and parkour. You would be asked to fill out a questionnaire that will ask you questions about: how you prefer to learn new things, whether you worry about making mistakes, and if you have a fear of failing. Completing this questionnaire means you have agreed to participate, and agree for us to use the information you give us in this research.

Participant Identification and Recruitment
In order to be able to participate in this research, you will need to practice one of the following activities as your main sport: BMX, Parkour or skateboarding. We also require participants ONLY from the ages of 10 – 18 years old. I am hoping for a minimum of 150 participants for this research, but I would like a range of different age groups. If we already have a large number of participants of your age, then we may not need to use your information.

Project Procedures
In order to be a part of this research, you will be required to fill out a questionnaire which is expected to take approximately 30 minutes. Once you have filled out a questionnaire and returned this, you will be entered into a draw where you have the chance to win a set of **'Beats by Dre' headphones**, as compensation and a thank you for your time in this research. If for some reason your information is not used, you will still be entered into the draw as a thank you.

Data Management
Data from these questionnaires will be used exclusively for this study. The questionnaires will be stored in a locked box on Massey University grounds.
Confidentiality can be ensured as identification is not required. You will not be able to be identified from the analysis in the study.

Participant's Rights

You are under no obligation to accept this invitation to participate. If you decide to accept this invitation to participate, you have the right to:

- *withdraw from the study during the 24 hours after completing the questionnaire*
- *ask any questions about the study at any time during participation;*
- *be given access to a summary of the project findings when it is concluded.*

Project Contacts

Please contact me if you have any questions about this research

Researcher: Toni Gordon. I can be contacted on 021 0233 5056 or by email toni.teegee@gmail.com

My Supervisor Dr Richard Fletcher can be contacted by email r.b.fletcher@massey.ac.nz

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Committee Approval Statement

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application 14/025. If you have any concerns about the conduct of this research, please contact Dr Andrew Chrystall, Acting Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x 43317, email humanethicsnorth@massey.ac.nz.

Appendix E: Information Sheet for Participants Parents

MASSEY UNIVERSITY

The benefits that Street-sports can provide as a learning environment

INFORMATION SHEET FOR PARENT/CAREGIVER

Project Description and Invitation
My name is Toni Gordon and I am a Psychology Masters student at Massey University doing research on sport psychology. I would like to invite your child to participate in research that investigates the possible benefits of participating in street sports for youth aged 8-18. Your child would be required to fill out a questionnaire which is expected to take approximately 30 minutes and will cover: their learning style preferences, scores on perfectionism and fear of failure. Filling out this questionnaire implies you have given consent for your child to participate, and for their information to be used for the purpose of this research.

Participant Identification and Recruitment
Participation in this research is voluntary. In order to be included in this research, participants will be required to practice one of the following activities as their main sport: BMX, Parkour or skateboarding. Participants will be excluded from the research if they a.) practice organized sports (such as rugby or netball etc) more than any of the street sports mentioned above, or b.) they are not within the age group of 8-18 years old. I am hoping for a minimum of 150 participants for this research, however I would like a wide range in my age-group selection. Therefore, if we have already a large number of participants the same age as your child, then we may not require their information.

Project Procedures
In order to be a part of this research, participants will be required to fill out a questionnaire which is expected to take them approximately thirty minutes. Once questionnaires have been completed and returned, your child will be entered into a draw where they have the chance to win a set of 'Beats by Dre' headphones, as compensation and a thank you for their time contributed to this research. If for some reason their information is not used, they will still be entered into the draw as a thank you.

Data Management
Data from these questionnaires will be used exclusively for this study. The questionnaires will be stored in a locked box on Massey University grounds.
Confidentiality can be ensured as identification is not required. Your child will not be able to be identified from the analysis in the study.

Participant's Rights
You are under no obligation to accept this invitation on behalf of your child. If you decide to allow your child to participate, you have the right to:

- *withdraw them from the study during the 24 hours after completing the questionnaire*
- *ask any questions about the study at any time during participation;*
- *be given access to a summary of the project findings when it is concluded.*

Project Contacts

Please contact me if you have any questions about this research

Researcher: Toni Gordon. I can be contacted on 021 0233 5056 or by email toni.teegee@gmail.com

My Supervisor Dr Richard Fletcher can be contacted by email r.b.fletcher@massey.ac.nz

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Committee Approval Statement

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application 14/025. If you have any concerns about the conduct of this research, please contact Dr Andrew Chrystall, Acting Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x 43317, email humanethicsnorth@massey.ac.nz.

Appendix F: Consent Form for Participants 16 Years Old and Over

MASSEY UNIVERSITY

Consent to participate in research

"The benefits of Street-Sports as a Learning Environment"

I have been given and have understood an explanation of this research project. I have had an opportunity to ask questions and have them answered to my satisfaction. I understand that I may withdraw myself (or any information I have provided) from this project before 31st November, 2014, without having to give reasons.

I understand that any information I provide will be kept confidential to the researcher and the supervisor. I understand the published results will not use my name, and that no opinions will be attributed to me in any way that will identify me. I understand that all information I have provided will be destroyed at the end of the project.

Signed:

Name of participant:

Date:

Appendix G: Consent Form for Parent/Guardian

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA

Parent/guardian informed consent form

"The benefits of Street-Sports as a Learning Environment"

I have been given and have understood an explanation of this research project. I have had an opportunity to ask questions and have them answered to my satisfaction. I understand that I may withdraw my child (or any information provided) from this project before 31st November, 2014, without having to give reasons.

I understand that any information provided by my child will be kept confidential to the researcher and the supervisor. I understand the published results will not use my child's name, and that no opinions will be attributed to them in any way that will identify them. I understand that all information provided by my child will be destroyed at the end of the project.

Signed: _____

Name of parent or guardian: _____

On behalf of participant: _____

Date: / /

Parent/guardian contact number: _____
(please provide this so that we may contact to verify consent)

Appendix H: Normality Distributions for Learning Styles

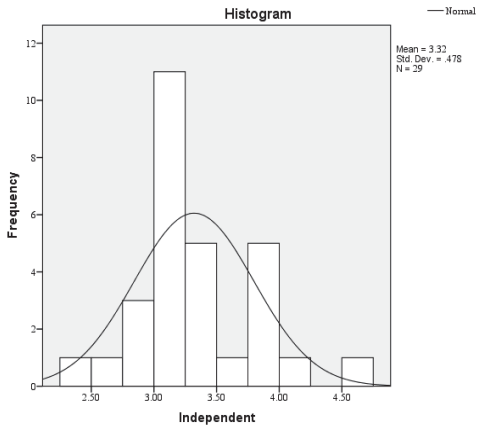

Figure 1. Normality distribution for Independent learning subscale

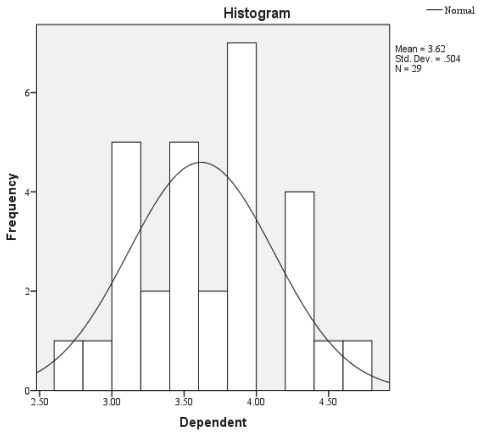

Figure 2. Normality distribution for Dependent learning subscale

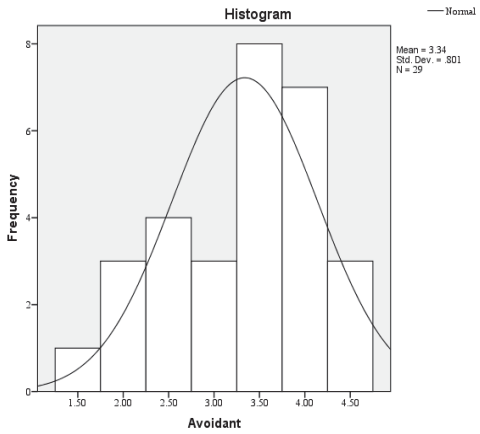

Figure 3. Normality distribution for Avoidant learning subscale

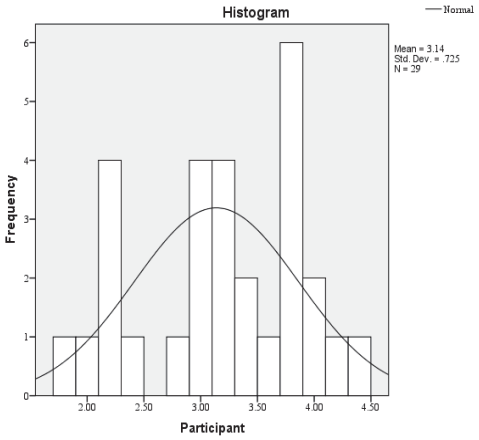

Figure 4. Normality distribution for Participant learning subscale

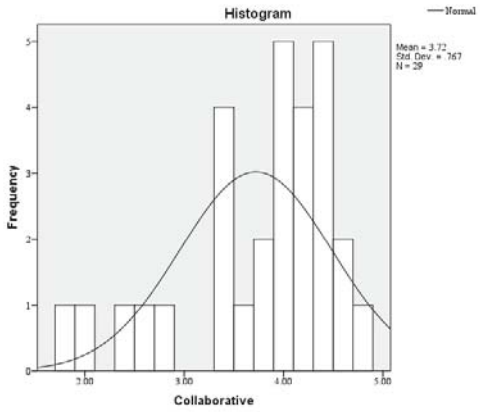

Figure 5. Normality distribution for Collaborative learning subscale

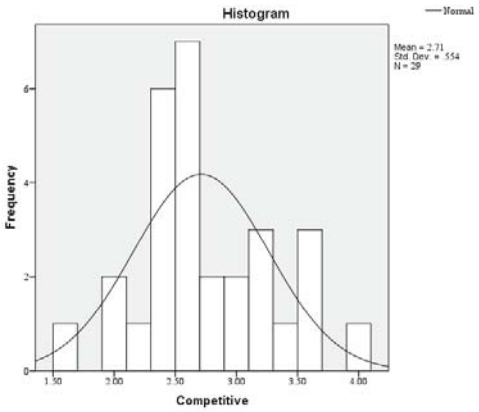

Figure 6. Normality distribution for Competitive learning subscale

Appendix I: Normality Distributions for Fear of Failure Subscales

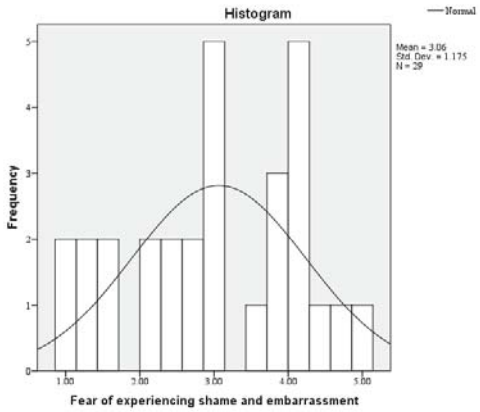

Figure 1. Normality distribution fear of experiencing shame and embarrassment subscale

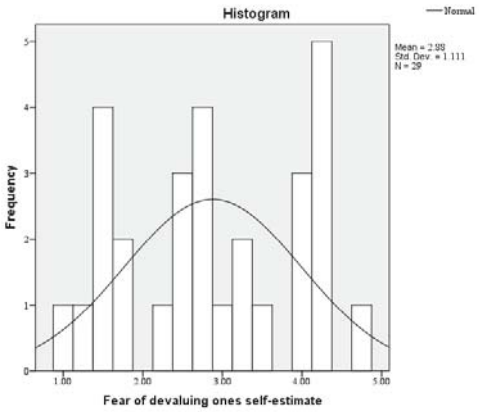

Figure 2. Normality distribution fear of devaluing ones self-estimate subscale

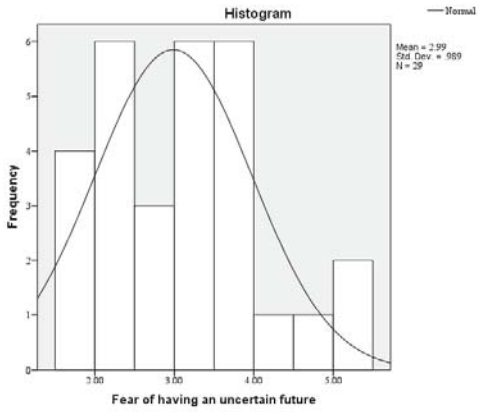

Figure 3. Normality distribution fear of having an uncertain future subscale

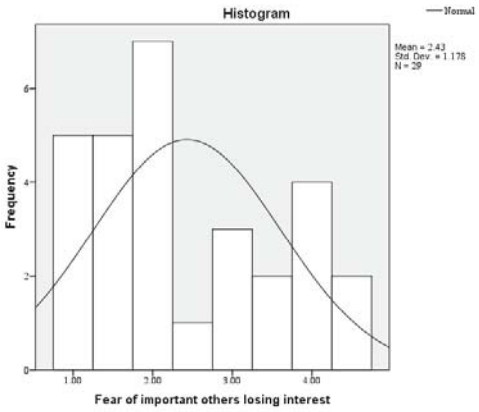

Figure 4. Normality distribution fear of important others losing interest subscale

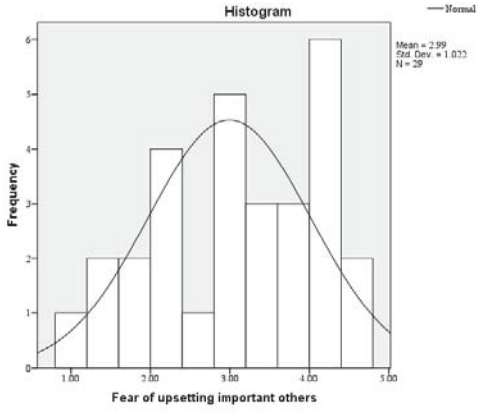

Figure 5. Normality distribution fear of upsetting important others

Appendix J: Normality Distributions for Perfectionism Subscales

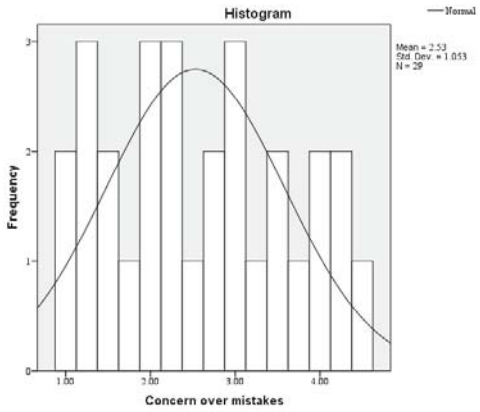

Figure 1. Normality distribution for concern over mistakes subscale

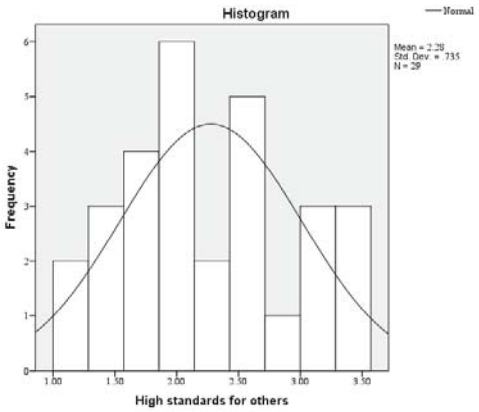

Figure 2. Normality distribution for high standards for others subscale

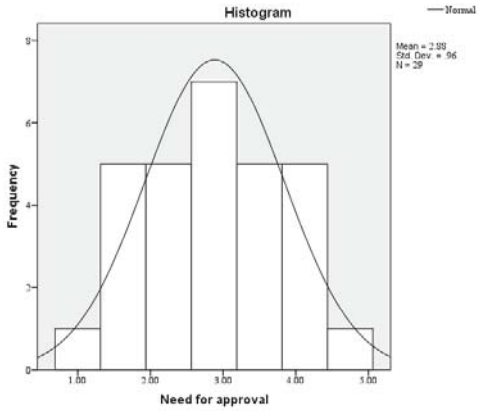

Figure 3. Normality distribution for need for approval subscale

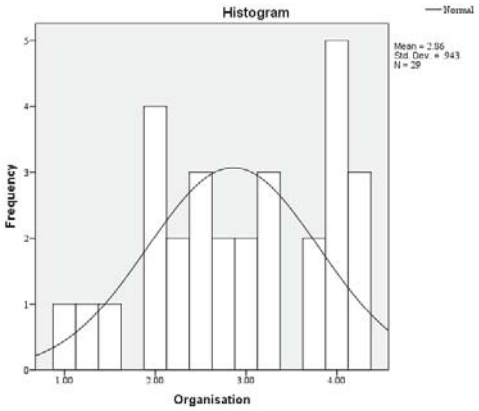

Figure 4. Normality distribution for organization subscale

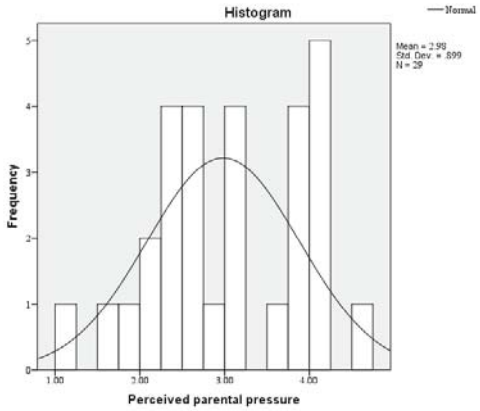

Figure 5. Normality distribution for perceived parental pressure subscale

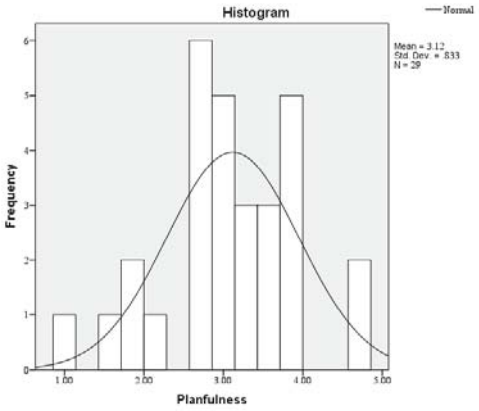

Figure 6. Normality distribution for planfulness subscale

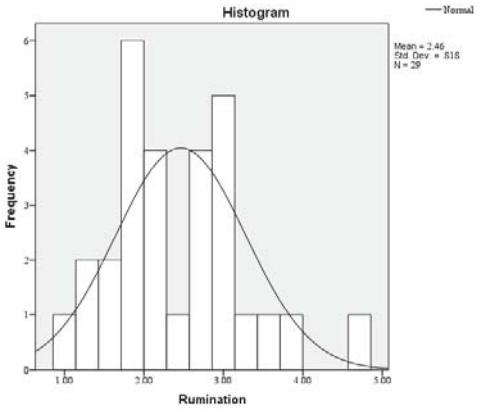

Figure 7. Normality distribution for concern over mistakes subscale

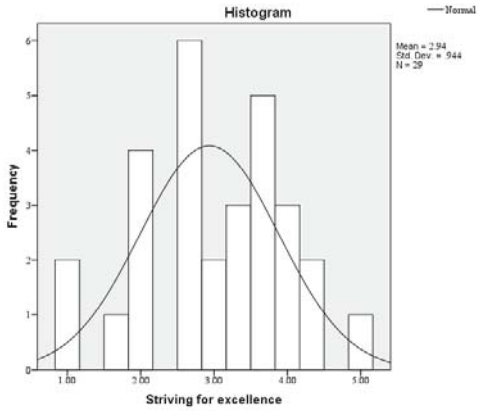

Figure 8. Normality distribution for high standards for others subscale

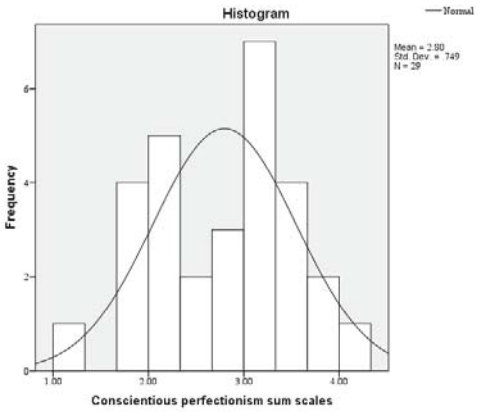

Figure 9. Normality distribution for conscientious perfectionism sum scales

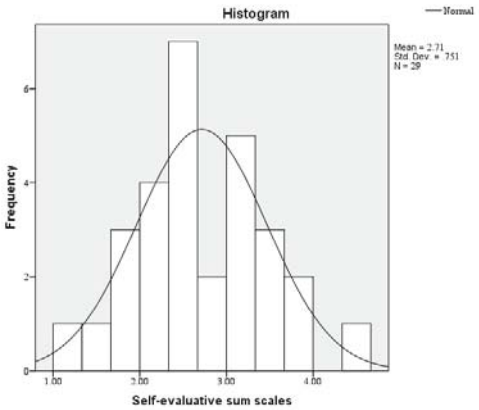

Figure 10. Normality distribution for self-evaluative sum scales