

Adolescent Girls' Friends, Peers, School Type

Do these influence Self-Esteem and Self-Concept of School?

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Abstract

Adolescence is a period when self-esteem and academic decisions become salient; peer friendships expand and their significance increases. This research examined female mid-adolescent friendships, best-friendships, same-sex friendships, opposite-sex friendships, and whether each of these three categories of friendship correlated with self-esteem, self-concept of school. Two different schools were compared. Ninety-seven girls participated, forty-three from a same-sex school, fifty-four from a mixed-sex school. Using a mixed design, respondents completed the McGill Friendship Questionnaire (MFQ – RA) (Mendelson & Abound, 1999), two peer relationship scales and academic self-concept scale, drawn from Self-Description Questionnaire II (SDQ II) (Marsh, 1992), Rosenberg Self Esteem Questionnaire (Rosenberg, 1989). Same-sex friendships positively correlated with self-esteem and self-concept of school. Opposite-sex friendships positively correlated with self-esteem. Best friendships were not found to be significant. Same-sex school participants had higher self-concept of school ability. Self-esteem was not significantly different between both groups. Findings and recommendations for future research are discussed.

CHAPTER 1

1 Introduction

1.1 Introduction

The term ‘adolescence’ comes from Latin, to ‘grow up’ (Gross 2010). It is a time of major change (Anderson & Olnhausen, 1999) a transition from childhood, where others had responsibility for one’s life, to adult personal accountability. Although the parental relationships remain influential, providing emotional and financial support and boundaries of acceptable behaviour (Hay & Ashman, 2003), interaction with peers enables the development of an identity (Smollar & Youniss, 1989) beyond the parental sphere (Hay & Ashman, 2003). Peers can provide a buffer between family life and adulthood (Warrington & Younger, 2011). They become a major reference point (Erwin, 1998) and their importance significantly increases (Buhrmester & Furman, 1987). Inclusion in the peer group is crucial for most adolescents (Warrington & Younger, 2011).

During adolescence the concept of friendship is altered, intimacy, acceptance and loyalty become more significant (McDougall & Hymel, 2007; Berndt, 2002). Intimacy, ‘the degree to which people share personal knowledge, thought and feelings’ (Arnett, 2010, p. 242) and interpersonal relationships have greater significance in female identity development (Gilligan, 1977) and psychological well-being (Rueger, Malecki & Demaray, 2010), compared to males. During mid-adolescence the gender of the peer group becomes more heterosexual with increased interest in, and interaction with opposite-sex peers (Dunphy, 1963; Ellis, Marsh & Craven, 2009; Feiring, 1999).

Friendships serve many functions: they validate self-concept, provide protection, intimacy, emotional support, and are linked to psychological, social and academic achievements (McDougall & Hymel, 2007). This research aims to further expand information on adolescent friendships, which are so fundamental to adolescent life (Connolly & Furman, 2000). It will focus on mid-adolescent girls and how their friendships may correlate with self-esteem, self-concept of general school ability. It will also analysis whether the gender mix of the school has any influence on self-esteem, self-concept of school ability.

1.2 Adolescence

‘A time of energy, dynamism ... a time of uncertainty, awkwardness and a searching for ones niche in society...few other ... periods ...will see such change, transition, upheaval and reorientation’ (Lalor, Roiste & Devlin, 2007, p. 1). It spans a period between childhood and adulthood (Warrington & Younger, 2011) and although no definitive boundary from commencement to completion has been accepted, the period of adolescence is determined not just by puberty, but by culture and society (Lalor et al., 2007).

This research specifically chose female mid-adolescence for two reasons. During early adolescence it is necessary to amalgamate changing physical appearance and biological maturation (Berger, 2005), however by aged sixteen the majority of female physical and biological changes are generally completed (Bell, 2012). Female friendships in mid-adolescence differ from those of early adolescence. ‘Friendship acquires at this time a pertinence and intensity it has never had before nor (in many cases) will ever have again.’ (Douvan & Adelson, 1966, p. 174). It expands beyond the sharing of mutual activities and deepens into a need for security, loyalty and social support, features necessary to nurture self-identity and sexual identity development during this period (Douvan & Adelson, 1966). The influence of peers’ peak during mid-adolescence, it is a time of highest susceptibility (Wang

& Eccles, 2012). The fundamental importance of friendship during this developmental stage of adolescence makes its consideration relevant and necessary

1.3 Theories of Adolescent Development

Erik Erikson's stages of lifespan development described adolescence as a period of crisis of identity versus identity diffusion (Erikson, 1980); who am I and where do I fit in, is 'the psychosocial aspect of adolescence' (Erikson, 1968, p. 91). Adolescents 'are desperately seeking a satisfactory sense of belonging ...' (Erikson, 1980, p. 95) and healthy ego development and self-esteem requires achieving an integral identity that is purposeful, meaningful, recognised and regarded by peers and society (Erikson, 1980).

Harry S. Sullivan's interpersonal theory of psychiatry focused on the importance of peer friendships during adolescence for this identity development and healthy self-esteem (Arnett, 2010). Sullivan also proposed that during mid-adolescence peer friendships expand to become more heterosexual and that one of the major tasks of adolescence is to also create healthy and satisfactory heterosexual relationships (Richards, Crowe, Larson & Swarr, 1998; Muuss, 1988).

Piaget proposed that during adolescence cognition expands beyond limited concrete experiences to abstract reasoning (Lalor et al, 2007). This process is divided into two sections, with the second section, analytic reflection and metacognition, developed from mid-adolescence (Muuss, 1988). As thought processes and capacities increase, the ability to understand and incorporate multiple perspectives is developed (Kurdek, 1978), therefore interactions with peers, sharing views, opinions and resources, can encourage and expand cognitive development (Wentzel, 1993; Hartup, 1996; Berndt et al., 1990).

These theories highlight the importance of healthy peer relationships for identity formation and cognitive growth. This research will incorporate and consider these theories when focusing upon female adolescent friendships and their connection to this developmental stage of mid-adolescence.

1.4 Adolescent Friendships

(i) Best friendships

Close friendships are defined as strong, reciprocated affection bonds shared between individuals (Berndt et al., 1990). As adolescents may be more familiar with the term best friend, both close friend and best friend will be used interchangeably throughout this thesis. Close friends are considered constant companions and special confidants (Erwin, 1998); they share intimate thoughts and feelings and provide help with problems (Arnett, 2010), a particularly salient feature of female friendships (Darling, Dowdy, VanHorn & Caldwell, 1999; Dolgin & Kim, 1994). Friends provide support, acceptance and loyalty (McDougall & Hymel, 2007; Berndt, 2002) and these skills improve the capacity to expand into the wider peer group (Berndt, 2002). Close friendships have uniquely important features (Korkiamäki, 2011) and consequently it is considered that they need to be examined as a distinct category within the overall context of adolescent friendships.

(ii) Peer Groups

The word peers derives from Latin 'equal'. Peer groups can be defined as a collection of 'several members which have roughly equal status within the confines and functions of the group' (Reber, Allen & Reber, 2009, p. 565). The need to belong is fundamental (Baumeister & Leary, 1995) and during mid-adolescence peer group membership becomes vitally important (Gavin & Furman, 1989; Warrington & Younger, 2011). Integration is often

necessary to enter and sustain membership within the group, with mid-adolescents found generally too immature to cope with non-conformity to group requirements (Warrington & Younger, 2011). This need for inclusion in the group during this period may be so influential it displaces the importance of one-on-one friendships (LaFontana, 2009; Erwin, 1998). As peer groups become so fundamental during this period (McDougall & Hymel, 2007), they are an important area in adolescent research.

Throughout adolescence girls generally consider same-sex friendships of greater importance than opposite-sex peer friendships (Erwin, 1998). However, from mid-adolescence onwards the desire for opposite-sex friendships becomes more apparent, mixed groups become more acceptable and the number of opposite-sex peers increase (Buhrmester & Furman, 1987). This transition to heterosexual groups is a normal and common development (Darling et al., 1999; Connolly et al., 2004) which is a fluid process akin to the Piagetian notion of small steps forward, then back into the familiar then stepping forward once more (Connolly et al., 2004). Opposite-sex friendships are a distinct relationship type (Hand & Furman, 2009), and as mid-adolescence is the period these mixed-gender friendships become more prominent and important they are considered an important dimension for inclusion in this research. Accordingly this research will consider peer friendship under two distinct categories, same-sex and opposite-sex friendships.

1.5 Self-Esteem

Self-esteem is a person's overall sense of worth and well-being (Arnett, 2010). It is an on-going process, influenced, evaluated and dependent upon self-concept and interactions with significant others (Anderson & Ohnhamson, 1999). As identity development and peer significance is heightened during mid-adolescence self-esteem can consequently become quite vulnerable (Lalor et al., 2007). It has been found that gender differences in self-esteem

levels emerge during adolescence, with girls at higher risk of low self-esteem compared to boys (Impett, Sorsoli, Schooler, Henson & Tolman, 2008; Lalor et al, 2007). Low self-esteem may predict the development of depression in females; depressive episodes experienced during mid-adolescence can correlated with future depressive experiences (Pelkonen, Marttunen & Aro, 2003). Due to its vulnerability and significance upon psychology well-being research to further expand knowledge of factors that correlate with mid-adolescent female self-esteem has been included as an area of investigation for this research.

1.6 Adolescent Friendships and Self-Esteem

(i) Best Friendship and Self-Esteem

Self-esteem can be affected by developmental transitions (Lalor et al. 2007) and research has found that positive friendships, with their capacity to provide intimate social support and companionship, can protect adolescence self-esteem during times of major adjustment and transition (Corsano, Majorano & Champretavy, 2006). Bowker and Spencer (2010), who looked at mixed-grade friendships, friendships between students in different academic years, in mid-adolescence, found that best friendships can have a unique contributory factor in positive psychological well-being, even after controlling for same-grade rejection and peer friendships. Nangle, Erdley, Newman, Mason and Carpenter (2003) found that girls were more reliant on the intimacy and self-disclosure that is found in small dyads, alternatively Rueger et al. (2010) found that girls in particular seek social support as a coping strategy during period of stress, with such support related with increased levels of self-esteem. Therefore the number of intimate friends and peer friendships, rather than just intimate dyads, may have a bigger influence on self-esteem. Mid-adolescence is a period of

transition and this research will explore whether there is a correlation between best friendships and self-esteem during this period of vulnerability.

Other research in the area of best friendships has found that they can have negative effects. Anti-social relationships have been shown to escalate negative behaviours (Berndt, 1999) and high levels of conflict within close friendships negatively affecting involvement with other peer relationships (Berndt, Laychak & Park, 1990). Interestingly, research has found low self-esteem a powerful predictor of adolescent delinquency (Cai-Lian, Teck-Heany, Wai-Mun & Wei-Li, 2011) and anxious and avoidant attachment to friends found to predict increased depressive symptoms (Wilkinson, 2010). Berndt et al. (1990) stated it was the quality of the friendship, as well as the closeness of the friendship, that had the positive impact upon the psychological well-being of adolescents. Self-esteem will thus be measured against the quality of best friendships within the overall wider context of peer friendships.

Extensive research examines peer friendships, however due to the unique characteristics of best friendships, one of the aims of this research is to expand knowledge about this particular dimension of female friendships during mid-adolescence. The quality of best friendships is thus measured as a separate component within overall adolescent friendships. It is expected that a positive correlation will exist between the quality of best friendships and self-esteem. It is important however to note the limitations of research in this area. Although best friendships are generally considered one-to-one relationships, during adolescence it has been found that girls often view the larger group as a network of intimate close friends (Erwin, 1998). In an attempt to overcome this, this study will also consider the number of best friends reported and the wider peer group.

(ii) Peer Group Friendships and Self-Esteem

Bohrnstedt and Fisher (1986) found that interaction with peers who validate a sense of self-worth had the strongest effect on self-esteem. A mounting body of evidence suggests that peer friendships are positively correlated with psychological well-being, a relationship that has been strongly supported (Siyez, 2008). Cai-Lian et al. (2011) found positive correlation between social support and self-esteem during adolescence, with perceived friendship support the most significant predictor. Similar research conducted by Tarrant, MacKenze and Hewitt (2006) shows those who reported high levels of positive identification with their peer group also reported higher levels of self-esteem and girls with positive attitudes towards same-sex peers were found to report higher scores on the global self-worth scale (Horn, Newton & Evers, 2011). Moradi and Funderburk (2006) study found that females who expressed unsatisfactory interpersonal relationships reported higher experiences of loneliness, unhappiness and fear of isolation, which negatively impacted their self-esteem (Corsano Majorano & Champretavy, 2006; Siyez, 2008). Bohrnstedt and Fisher (1986) also found that relationships with peers during adolescence are as important as the number of intimate friendships in adolescence can mediate the ill-effects of poor parental attachments and protect self-esteem. Building upon this research, Ma and Huebner (2008) found both parental, especially maternal, and peer attachment positively related to life satisfaction. Peer attachment was found to have greater significance on self-esteem and moderately mediated poor parental attachment, but this was only found for females (Ma & Huebner, 2008). This study will specifically study mid-adolescent females to examine how peer friendships during this period may influence their self-esteem.

Interaction with opposite-sex peers was found to be a positive experience for mid-adolescent girls (Richard et al., 1998); girls who had opposite-sex peer friendships reported more positive affect (Richard et al., 1998). Girls reported positive factors related to opposite-

sex friendships (Hand & Furman, 2009). This was also supported by Darling, Dowdy, Van Horn and Caldwell (1999) research, who found those with mixed groups of friends stated they were happier and enjoy themselves more compared to those who only reported same-sex friendships. Experiences of comfort and understanding of the opposite sex may improve the adolescent's ability for authenticity within opposite-sex relationships, which has been found to positively correlate with girls' self-esteem (Impett et al., 2008). Liem and Marin (2011) research, which examined male and female same-sex and opposite-sex peer friendships in both early and late adolescence, found a positive relationship between peer relationships and self-esteem, although the effect was not as strong for opposite-sex peers. Conversely, Darling et al. (1999) research found that although girls with opposite-sex peers had higher positive affect, the change in the peer group mixed had a negative effect on their self-esteem levels, especially for girls. It was suggested that this may be due to greater pressure on personal competencies and self-image dissatisfaction (Darling et al., 1999). This research, which is focused specifically on the period of mid-adolescence, when peer influence is prominent and heterosexual friendship groups develop will therefore examine peer friendships and self-esteem under two separate peer friendship categories, same-sex friendships, opposite-sex friendships. This will further develop and enhance understanding about each of these distinct areas of mid-adolescent friendship.

1.7 General School

School is an important factor in adolescent life, with approximately seven hours per day spent in school. During adolescence the school system changes from primary to secondary education. Consequently, school buildings are generally larger, more departmentalised, with greater focus on academic achievement (Wang & Eccles, 2012). Mid-adolescent is the time when subject selection for final year state examinations and consequential college opportunities are decided; choices about academic commitments are

made (Ryan, 2000). As most career opportunities are linked to academic success, these decisions can have far reaching consequences (Ryan, 2000).

Peers can have major influence upon academic life, through opinions, motivations, reinforcement, rational discussions, observational learning and modelling (Ryan, 2000; Berndt, 1999). Wentzel, Barry and Caldwell (2004) found that younger students without friends had lower levels of academic achievement, compared to those students with good reciprocated friendships. Conversely, a mounting body of evidence suggests that it is the quality of the friendship that is of major importance, not just having friends (Berndt, 1995; Hartup, 1996; Witkow & Fulini, 2010).

This study will examine how each of the three friendship categories may influence mid-adolescent girls' self-concept of their school ability. Due to the fundamental importance of school and recommendations to further examine and explore the influence of adolescent peer relationships and school (Ryan, 2010, p. 11), this study will provide further information about adolescent friendships and how they may correlate with self-concept of school.

(i) Best Friendship and School

Lau, Liem and Nie (2008) found that those who perceive academics as important, useful and interesting are more likely to engage with and have a higher perception of academia in general, compared to those with less regard for it. Those who admire and respect their friends listen to their opinions and ideas and trust their judgements (Berndt et al., 1990), with research supporting the view that friends' decisions are more similar after discussions with friends than before (Berndt, et al., 1990). Strough, Berg and Meegan (2001) found that for early adolescents, friendships were negatively correlated with perceived academic problems. Academic best friends may therefore positively influence each other regarding their self-concept of school and abilities, through encouragement, discussions, modelling and

support. Alternatively, Witkow and Fuligni (2010) found that adolescents are drawn to those with similar academic identities. Therefore friends may reinforce rather than improve each other's self-concept of school, be these self-concepts positive or negative. Strough et al (2001) found that adolescents prefer working with friends in a collaborative setting, but not in competitive ones. The education system, which often increases internal competition for high grades, especially to attain college places, may therefore negatively impact the potential best friends may have to positively benefit each other in the area of academic development. Alternatively, Vaquiar and Kao (2008) found that adolescence with strong reciprocated friendships showed higher levels of academic achievement, positive school behaviour and academic performance.

Addressing students' self-perceptions and school bonding is important to increase academic achievement, with close emotional relationships found to be one of the factors that increase school bonding (Eisele, Zand & Thomson, 2009). Examining whether the quality and satisfaction with best friends has any correlation with self-concept of academic ability is one of the aims of this research.

(ii) Peer Friendships and School

Friendships have been shown to have a strong influence on adolescents, both within and outside of school (Berndt et al., 1990). Changes to the school structure often creates and provides increased exposure to a wider peer group (Güroğlu, Cillessen, Haselager & Lieshout, 2012). As group inclusion is such an important dimension of adolescent life, its influence and importance may not just be at a social level, but also an academic one. Demaray, Malecki, Davidson, Hodgson and Rebus (2005) found that peer group membership was more important than close friendships with regard to long term adjustment to school. Similar research, conducted by Vaquera and Kao (2008) found that isolation from the peer

group impacted not just social development, but also academic achievement. Research that has examined the relationship between peer friendships and academic achievement has found that perceived acceptance and support within the group is linked with academic achievement (Eisele et al., 2009; Harper, 2006; Cooper & Datnow, 2000) and academic self-concept. Peer friendships were found to be more important than close friendship in long term adjustment to school (Demaray et al, 2009). However the characteristics of the friendship groups are vital, as peers can reinforce and exasperate either positive or negative school behaviour (Wang & Eccles, 2012).

Further studies that have examined the relationship between peer support and academic achievement have found conflicting evidence. Carter, McGee, Taylor and Williams (2007) research examined mid-adolescence school engagement and found that it was family rather than peer relationships that predicted school engagement. It is however, important to note a limitation to this study. Parents and peers were not assessed as separate categories and compared, instead respondents had to choose from a list that contained parents, friends or others. This integration of available responses may have adversely affected the findings. Research conducted by Wilkinson (2010) highlights this, as it was found that the quality of peer friendships, best friends, and maternal attachment, were all predictive of positive attitudes of school, with each having generally similar magnitude. Building on this, Liem and Martin (2011) examined peer relationships under two categories, same-sex and opposite-sex friendships, whereby it was found that mixed peer groups benefit academic performances, although same-sex peers were found to have the strongest predictive effect. Hartup (1996) also found that similar sex peers, especially female-female groups, influenced school relationships attitudes.

The area of peer adolescent relationships and how these might affect education during adolescence has been recommended as an area that requires further research (Van Ryzin,

Gravely & Roseth, 2009; Wilkinson. 2010). In this regard, and in view of the fact that there appears to be limited research that examines adolescent's peer friendships, divided into these two distinct categories, same-sex friendships, opposite-sex friendships, this research will explore these categories as separate components, and examine whether any relationship exists between adolescent peer group friendships and self-concept of school.

1.8 School Type: Same-Sex and Mixed-Sex

Gender-mixed settings can be positive experiences for adolescent girls (Darling et al., 1999), with exposure to opposite-sex peers related to positive self-assessment (Darling et al., 1999). Bowker and Spencer (2010) found that a negative correlation existed between those who reported having mixed gender peers and loneliness, even when accounting for same-sex rejection, which may be due to the ability of opposite-sex peers to provide alternative perceptive and opinions (Bowker & Spencer, 2010). Mixed-sex schools therefore, with more convenient access to mixed-gender setting would be predicted to have higher levels of self-esteem. Alternatively a study conducted in a mixed elementary school, which measured self-esteem and adaptation to school life, found that girls were unaffected by the gender mix of the school (Brutsaert & Bracke, 1994). However, it is worth noting that this study was examining younger girls, when opposite-sex friendships are not as important or as significant as they become during mid-adolescence.

Although co-education schools may provide greater access and opportunities to make opposite-sex friendships, opposite-sex friendships can also arise outside of school settings (McDougall & Hymel, 2007), with many opposite-sex friendships and interaction found to take place outside of the school environment (Bowker & Spencer, 2010). Interestingly, Darling et al. (1999) found that even when girls attended a mixed-gender school the majority of girls still spend more time and remained more intimate with same-sex peers. This may be

due to the fact that girls have been found to prefer female confidants and when with male friends tend to stick to safe, less personal topics (Dolgin & Kim, 1994). This therefore may mediate the impact of mixed-sex school environment, with girls attending same-sex schools still experiencing similar opposite-sex friendships, albeit outside of the daily academic setting.

Although Liem and Martin (2011) propose that interaction with mixed peers is essential for academic development, Chazal, Guimond & Darnon (2012) recent studies have found that the comparison context, intragroup vs. intergroup can greatly affect self-cognitions. Festinger's social comparison theory (1954) proposes that one evaluates one's sense of self through comparison with others (as cited by Chazal et al., 2012), thus gender differences in career choices can be influenced by how one evaluates oneself within one's significant environment (Chazal et al., 2012). Consequently the academic gender environment is an important area of study. Differences were found in academic self-concept when girls were considering themselves within a mixed setting (Chazal et al., 2012). Greater degrees of stereotypical competencies were reported, such as boys reported being better at science, girls reported being better at arts, however these stereotypical differences disappeared when participants were comparing themselves within their own, in-group, setting (Chazal et al., 2012).

Research has found that when given a choice adolescence chose to collaborate and work in same-sex groups, the preference for opposite-sex group mix only became more prevalent in less structured settings (Strough et al., 2001). An environment free of distraction, without the worry about the opinion of boys was found to be more academically productive for girls (Vaquera & Kao, 2008) Mixed-sex schools may therefore have social distraction that may negatively impact academic performance (Vaquera & Kao, 2008). This would suggest that the academic environment has an influencing effect on academic self-concept and ability.

It is predicted therefore that girls in a same-sex school will have higher self-concept of their academic ability than girls who attend a mixed-sex school.

There would appear to be a gap in the research with regard to the significance of the gender mix of the school environment during mid-adolescence on self-esteem levels, self-concept of school. This research aims to address this gap by comparing these two different school types.

1.9 Rationale and Variables

Adolescence is a period of transition and identity development. It is a period when friendships become uniquely significant, with friendships having a specific uniqueness for females (Richards et al., 1998). Due to the expansion of friendships during mid-adolescence, it is considered that research should evaluate friendship under three different distinct categories, best friends, same-sex friends, opposite-sex friends.

Much research has examined self-esteem, however there is a gap in the research with regard to mid-adolescent friendships and self-esteem. This research therefore aims to expand knowledge in this area.

School is fundamental during adolescence, it facilitates cognitive development, identity formation and future career opportunities. Swann, Chang-Schneider, Larsen & McCarty (2007) proposed the importance of differentiating between global and specific instruments, multiple meta-analysis found that academic self-concept was a better predictor of academic ability than measurement of self-esteem alone (Swann et al., 2007). Therefore self-concept of academic ability rather than just self-esteem or actual academic performance has been chosen for this study. Although some research has investigated the relationships between peer relationships and academic variables, a gap has been identified

with regard to the period of mid-adolescence, peer friendships and self-concept of school ability, which this research aims to address.

Little research has been found which examines whether the gender mix in school has any impact upon mid-adolescent girls' self-esteem and self-concept of school. This research aims to fill this gap by comparing two school environments, same-sex school and a mixed-sex school, to ascertain whether there are differences in self-esteem levels, self-concept of school ability, when these two school groups are compared.

2.0 Hypothesis

(i) Hypothesis 1

It is hypothesised that there will be a significant relationship between female mid-adolescent friendships, as measured by best friendships, same-sex friendships, opposite-sex friendships and self-esteem.

(ii) Hypothesis 2

It is hypothesised that there will be a significant relationship between female mid-adolescent friendships, as measured by best friendships, same-sex friendships, opposite-sex friendships and self-concept of school.

(iii) Hypothesis 3

It is hypothesised that there will be a significant difference between the two school groups, same-sex school, mixed-sex school, as measured by self-esteem, self-concept of school ability.

CHAPTER 2

2. Methodology

2.1 Participants

A sample population of 97 mid-adolescent girls currently undertaking the transition year programme in second-level education participated in this study. The transition year programme is aimed at 15 -16 year old students (Jeffers, 2011). Permission was requested and received from the principals of two secondary schools located in County Wicklow (see Appendix A). There were two groups of participants, Group 1: mid-adolescent girls attending an all-female secondary school (n=43), Group 2: mid-adolescent girls attending a mixed-sex secondary school (n=54). Students participated during normal school hours and no incentives were given to the students.

2.2 Design

This study was a mixed design consisting of two key elements. A non-experimental, correlational design was used to assess whether any relationship existed between mid-adolescent female friendships and self-esteem; mid-adolescent friendships and self-concept of school. Friendships was measured under three separate categories, best friends, same-sex friendships and opposite-sex friendships. Self-esteem levels and self-concept of general school were separately measured as the criterion variables.

A cross-sectional quasi-experimental design was conducted. Participants were divided into two groups; same-sex school (Group 1), mixed-sex school (Group 2). The mean scores of the two groups, as measured by self-esteem and self-concept of school, were compared to examine whether any significant difference existed between the two groups and these two dependent variables.

2.3 Materials

A self-administered, paper and pen questionnaire was used (see Appendix B). The questionnaire booklet was devised by the researcher and contained six sections, cover sheet, general questions, best friend(s) section, peer group and school section, self-esteem section and contact details section.

General Questions

This section contained six stand-alone descriptive questions, devised by the researcher; the type of school attended, number of best friends, “0 – 5”; gender of best friends, “all girls”; “all boys”; “mainly girls”; “mainly boys”; “mixed”, do you have a group of friends, “yes”, “no”; number in group of friends, “1-3”, “3-5”, “5-9”, “10 or more”, gender mix of the friendship group, “all girls”; “all boys”; “mainly girls”; “mainly boys”; “mixed”. Participants circled the answer most appropriate to them.

The McGill Friendship Questionnaire - Respondent Affection (MFA-RA) (Mendelson & Abound, 1999)

This measures respondent’s feelings towards a friend(s). One change was made, the word BEST was substituted for CLOSE. It was felt by the researcher that this was a clearer term for this age group. This questionnaire lists 16 questions, which measured both feelings for, and satisfaction with, friend(s). These subscales have been found to be reliable, with high internal consistency, alpha .96 and .92 respectively. Statements such as “I care about ___”, “I want to stay friends with ___” are represented along a 9-point scale, (-4 to 4), on which four points are labelled, “very much disagree” “somewhat disagree”, “somewhat agree”, “very much agree”. Total scores are calculated by adding all of the respondents’ scores.

The Self-Description Questionnaire II (SDQ II) (Marsh, 1992)

This measures self-concept in adolescents, from junior to senior schools. The coefficient alpha of reliability of each SDQ-II scale is high, varying from .83 - .91 (median=.87). Three sub-scales were used, which consisted of 28 statements. A subscale measured general school. It contained 10 statements such as “I do well in tests in most subjects”, “Most subjects are just too hard for me”. A subscale measured same-sex peers friendships, it contained 10 statements such as “I make friends easily with girls”, “most girls try to avoid me”. A subscale measured opposite-sex peer friendships, it contains 8 statements such as “I have a lot of friends of the opposite sex”, “I do not get along very well with boys”. Each of these three subscale statement were represented along a numerical 6-point scale, ranging from 1 “false” (how unlike you) to 6 “true” (like you). The responses for negative statements are recoded. Total recoded scores were calculated by adding all of the respondents’ scores.

The Rosenberg Self Esteem Questionnaire (Rosenberg, 1989)

This is a standardised tool that measures levels of self-esteem. It has been shown to have high reliability, alpha range of .77 - .88. It contains 10 statements, such as “on the whole, I am satisfied with myself”, “I certainly feel useless at times”. Each statement is represented along a 4-point scale from “strongly agree”, “agree”, “disagree”, “strongly disagree”. Negative statements are recoded. Total recoded scores are then calculated by adding all of the respondents’ scores.

2.4 Procedure

The research was introduced by the teacher who remained present throughout. Students were informed that the researcher was conducting research about girls of their age

group, looking at friendships and how these might affect how they feel about themselves and about school. The researcher stressed that participation was voluntary, students could abstain or while completing the questionnaire they could skip any or all questions. The researcher explained that answers would be anonymous and once the questionnaire was collected it would not be possible to be removed from the sample. Participants were asked not to put any identification marks on the booklets. The researcher then drew their attention to the last page of the questionnaire booklet, which contained the details of the researcher and her supervisor as well as details of relevant support services. It was explained that this sheet was not connected to the booklet and all students were asked to retain this sheet. The questionnaires were distributed, students were asked to complete them independently, to not confer with others. The researcher collected the questionnaires and thanked the students.

The mixed-sex school requested that the questionnaires be distributed by their teaching staff during school hours. The researcher left a box of questionnaires in the school office and collected completed questionnaires.

CHAPTER 3

3. Results

3.1 Descriptive Statistics

(i) Best Friendships

Table 1: *Descriptive Statistics of Number of Best Friends*

Number of Best Friends	Frequency	Percent
0	2	2%
1	6	6%
2	16	17%
3	16	17%
4	12	13%
5	40	41%
7	2	2%
10	1	1%

As can be seen in Table 1 above, best friends do not seem to have been generally considered one-to-one relationships, only 6% reported 1 best friend. The majority, 41%, reported 5 best friends, the highest answer supplied in the questionnaire and 47% reported between 2 and 4 best friends. A small minority, 2%, reported no best friend and 3% created their own responses (7 and 10 best friends).

Table 2: *Descriptive Statistics of Gender of Best Friends*

Gender of Best Friends	Frequency	Percent
All Girls	24	25%
All Boys	4	4%
Mainly Girls	22	23%
Mainly Boys	3	3%
Mixed	40	42%

The majority, 42%, also reported that their best friend gender group was mixed. However, as can be seen in Table 2 above, there was a slightly high proportion of female best

friends, 48%, when those that reported either all girls, 25% or mainly girls, 23% were combined. Only a small minority 7% reported either mainly or all boys.

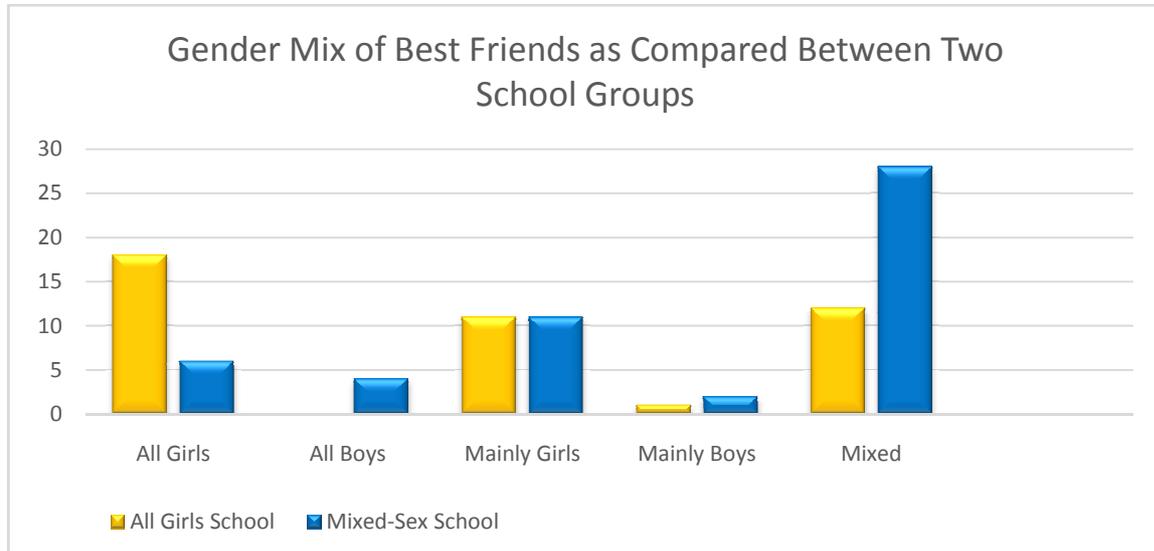


Figure 1: *Gender Mix of Best Friends as Compared Between School Groups*

As can be seen in Figure 1 above, when the two school groups were compared, differences in the gender mix of best friends emerge, most noticeably in the all-girls and mixed categories. For all-girls, same-sex schools were higher, 42%, mixed-sex schools, 11%. For mixed best friends, mixed-sex schools were higher, 52%, same-sex schools, 28%.

Table 3: *Descriptive Statistics of Total Best Friend Scores*

Statistics	Value
Mean	56.85
Mode	64.00
Median	61.00
Standard Deviation	11.45
Skewness	-2.57
Kurtosis	6.74
N	84.00

As seen in Table 3 above, the mean score for best friend(s) was 56.86 (SD=11.45). However, this was found to be non-normal data, with a negative skewed distribution (-2.57),

and a Leptokurtic curve (6.74). Therefore the mode and median score will be used. The majority of responses gave the highest score, mode (64), with the middle score, median (61) also very high. Thus it was found that the overall score for quality of best friendships was very high.

(ii) Peer Friendship:

Table 4: *Descriptive Statistics of Size of Peer Groups*

Size of Peer Group	Frequency	Percent
1 – 3	5	5%
3 – 5	9	10%
5 – 9	35	37%
10 +	46	48%

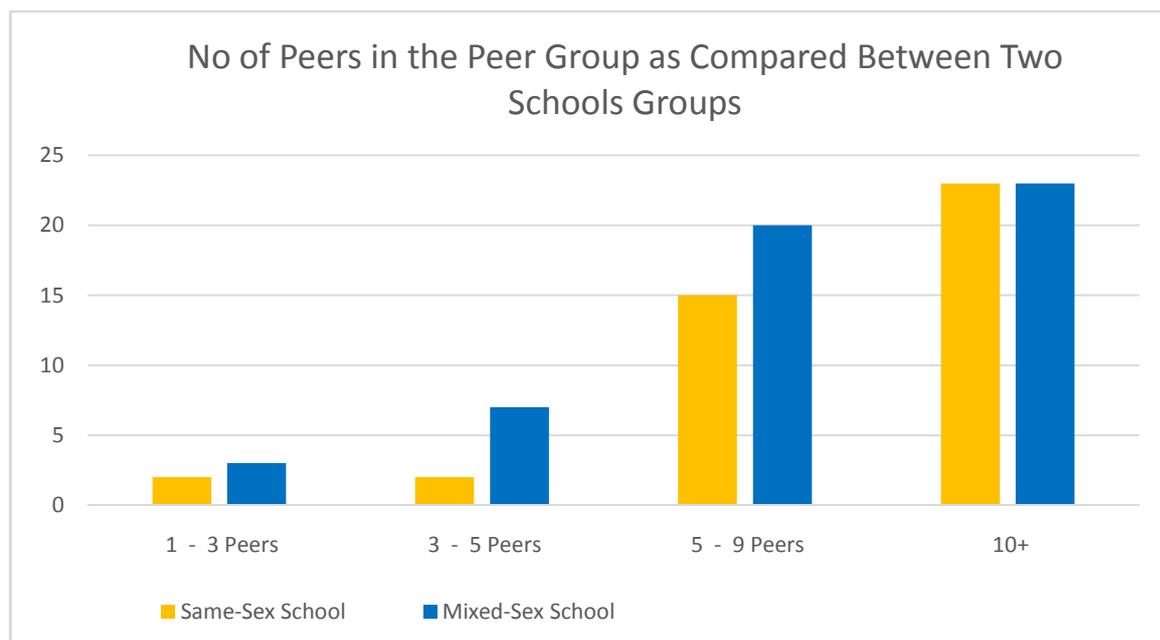


Figure 2: *Number of Peers in the Peer Group as Compared Between Two School Groups*

All of the participants attending same-sex school (100%) and the majority (94%) of mixed-sex school participants belonged to a peer group. As can be seen in Table 4, the majority of participants have a large peer group, 84% reported 5 or more with 47%, reported

10 or more. Only 15% of participants have a peer group of less than five. Some difference was found when both groups were compared, Figure 2, whereby mixed-sex school groups had slighted higher levels of smaller peer group size. However the majority in both groups reported a peer group size of 5 or more.

Table 5: *Descriptive Statistics of the Gender Mix of the Peer Group*

Variables	Frequency	Percent
All Girls	31	32%
All Boys	3	3%
Mainly Girls	7	7%
Mainly Boys	2	2%
Mixed	51	53%

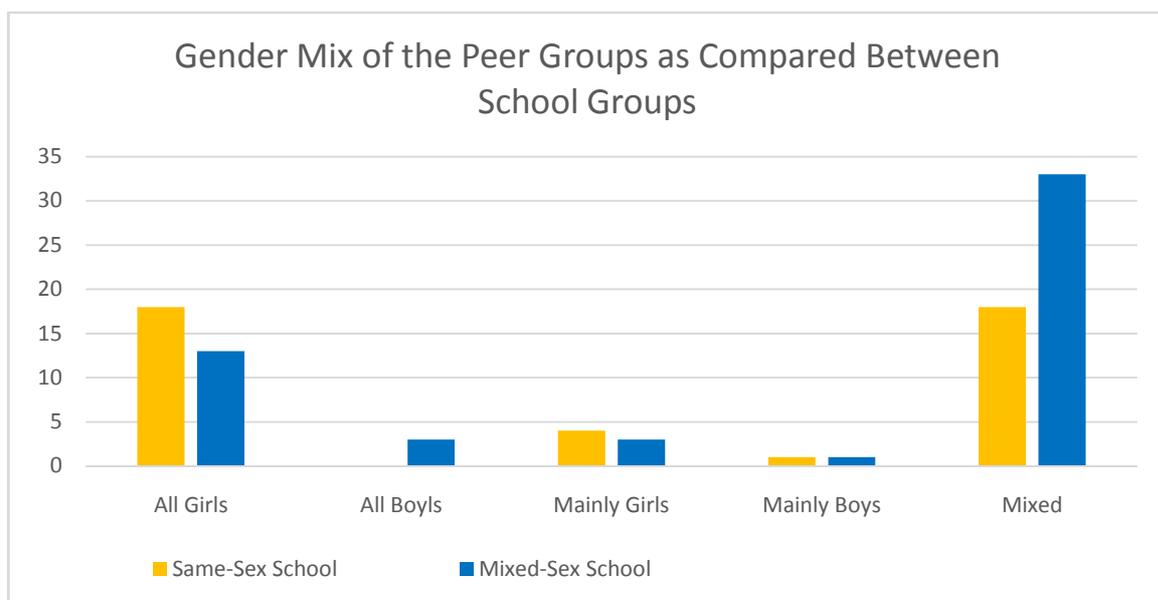


Figure 3: *Gender Mix of Peer Groups Compared Between Two School Groups*

The gender mix of the peer group generally fell into two major categories, mixed peers, 53%, and all girls, 32%, as per Table 5. The combined total of all girls and mainly girls was 39%. Differences were found when the two school groups were compared. The majority of those attending mixed-sex school 61% reported higher levels of mixed gender peer groups, when compared with the same-sex school participants who reported 42% for all girls peer

group and 42% mixed peer group. Only a small number of those in mixed school reported all boys, with the category mainly girls/mainly boys very similar for both groups, as seen in Figure 3.

Table 6: *Descriptive Statistics of Peer Friendship Scores and Psychological Measures*

Variable	Mean	SD	N
Same-Sex Friend	47.00	6.37	74
Opposite-Sex Friend	33.65	6.05	77
Self-Esteem	16.58	5.05	69
Self-Concept of School	42.25	10.19	77

As can be seen in Table 6 the mean score for same-sex friendships is 47 (SD=6.37), and opposite-sex friendships is 33.65 (SD=6.05), these scores can be considered quite high, as the top scores obtainable in each sub-scale of this instrument were 60 and 48 respectively. The mean score for self-esteem was 16.58 (SD=5.05), as the top scale for this instrument is 40 this mean total can be considered quite low. The mean score for self-concept of school can be considered quite high, 47.00 (SD=6.37), with this sub-scale's top score 60 in this instrument.

Table 7: *Descriptive Statistics of Friendship Scores and Psychological Measures as Compared Between the Two School Groups*

School Group	Variable	Mean	SD	N
Same-Sex School	Same-Sex Friend	49.23	4.22	39
	Opposite-Sex Friend	32.23	5.64	39
	Self-Esteem	17.42	4.58	36
	Self-Concept of School	45.40	8.90	40
Mixed-Sex School	Same-Sex Friend	44.51	7.42	35
	Opposite-Sex Friend	35.11	6.18	38
	Self-Esteem	15.67	5.45	33
	Self-Concept of School	38.84	10.50	37

When the two schools are compared, see Table 7, same-sex schools have a higher mean in the variables, same-sex friends (49.23), self-esteem (17.42) and self-concept of

school (45.40), with those attending mixed-sex schools having a higher mean for opposite-sex friends (35.11). Self-esteem is quite low for both groups, same-sex (17.42) and mixed-sex (16.67).

3.2 Inferential Statistics

There was two objectives to this study. The first aim was to test if there was a relationship between three different friendship types, self-esteem and self-concept of school.

(i) Self-Esteem

The first hypothesis used self-esteem as the criterion variable and anticipated that there would be a relationship with the three predictor variables measuring mid-adolescent friendships. The hypothesis was supported by two of the three friendship variables. A Pearson correlation coefficient revealed there was a moderate positive significant relationship between same-sex peer groups and self-esteem ($r(56) = 0.40, p = .002$), and a moderate positive significant relationship between opposite-sex peer groups and self-esteem ($r(62) = 0.33, p = .009$). Therefore the null was rejected. Multiple regression analysis was then used to test whether same-sex friendships and opposite-sex friendships levels were predictors of self-esteem. The results of the regression indicated that two predictors explained 18% of the variance ($R^2 = .18, F(2, 52) = 7.09, p = .01$). It was found that same-sex peer group significantly predicted self-esteem ($\beta = .342, p = .01, 95\% \text{ CI} = .070 - .478$) while opposite-sex peer group did not predict self-esteem ($\beta = .235, p = .07, 95\% \text{ CI} = -.018 - .438$). Therefore same-sex friendships are considered the stronger predictor.

The hypothesis was not supported by the best friend variable. As best friendships scores were found to be non-normal, non-parametric tests were used. A Spearman's rho

found that there was no significant association between best friend(s) and self-esteem ($r(62)=0.02$, $p=.860$).

(ii) Self-Concept of School

The second hypothesis used self-concept of school as the criterion variable and anticipated a relationship between mid-adolescent friendships and self-concept of school. Only one of the three friendship variables supported this hypothesis. A Pearson correlation coefficient found that there was a moderate positive significant relationship between same-sex peer groups and self-concept of general school ($r(66) = 0.45$, $p < .001$). Therefore the null is rejected. Using simple regression it was found that same-sex friendships significantly predicted the levels of self-concept of school ($F(1,66) = 0.45$, $p < .001$, $R^2=.20$) (Same-sex friends $\beta=.447$, $p<.001$). Confidence limits were narrow, showing that we are 95% confident that the population slope is between .37 and .09. The two other friendship variables did not support the hypothesis. A Pearson correlation coefficient found that there was no significant relationship between opposite-sex peer groups and self-concept of general school ($r(67) = 0.1133$, $p = .392$). Therefore the null is accepted. A Spearman's rho found no significant association between best friends and self-concept of general school ($r_s(68) = 0.08$, $p = .521$).

(iii) Self-Esteem and Self-Concept of School between Two School Groups

The second objective of the study was to examine whether the two school groups were significantly different as measured by self-esteem and self-concept of schools.

Table 8: *An Independent Samples T-test table displaying the differences between the Two School Groups*

Variables	Groups	Mean	SD	T	DF	p
Self-Esteem	Same-Sex School	17.42	4.58	1.45	67	.152
	Mixed-Sex School	15.67	5.45			

Self-Concept of School	Same-Sex School	45.40	8.90	2.97	75	.004**
	Mixed-Sex School	38.84	10.51			

*p significant at .05 level.

**p significant at .01 level.

The third hypothesis stated that a significant difference would exist between same-sex and opposite-sex school as measured by self-esteem and self-concept of school. This hypothesis was partially supported. An independent sample t-test, as can be seen in Table 8 above, found there was a statistically significant difference in self-concept of school between the two school groups, ($t(75) = 2.965, p = .004$), therefore the null is rejected. As the higher mean is in same-sex school (45.40), mixed-sex school (38.84), this reveals that this school group has higher level of self-concept of school. However, no difference was found when the two groups were compared for levels of self-esteem as an independent sample t-test found that there was not any statistically significant difference in levels of self-esteem between the two school groups, ($t(67) = 1.45, p = .152$). Therefore the null can be accepted.

CHAPTER 4

4. DISCUSSION

This research had two aims. The first aim was to examine how the three different types of peer friendships, best friends, same-sex friends and opposite-sex friends, correlates with mid-adolescent girls' self-esteem and self-concept of school ability.

4.1 Friendship and Self-Esteem

The first hypothesis predicted that a significant relationship would exist between mid-adolescent friendships, best friends, same-sex friendships, opposite-sex friendships, and self-esteem. This hypothesis was supported for two of the three friendships categories. A significant positive relationship was found between same-sex friendships and self-esteem, a significant positive relationship was found between opposite-sex friendships and self-esteem. The hypothesis for these two friendship categories is therefore accepted. These findings reflect Erikson's theory of identity development which emphasised the need for inclusion in and high regard from the wider group, beyond the family for identity development and self-esteem. These findings also support Sullivan's theory of the significance of the peer group, both same-sex and opposite-sex peer friendships. This significance has been found for female mid-adolescents' self-esteem. This builds on previous research that found a positive relationship between peer friendships and self-esteem (Cai-Lian et al, 2011; Tarrant et al., 2006; Horn et al., 2011) and also the findings that positive attachment to peers can protect self-esteem (Ma & Huebner, 2008).

The predictive nature of the two peer friendship groups was then examined. It was found that although both friendship groups positively predicted self-esteem levels, the same-sex friendships were found to be the more significant predictor. This finding reveals that

although opposite-sex friendships have a positive significant influence on mid-adolescent girls' self-esteem their influence is not as significant as same-sex friendship. This supports Erwin (1998) who stated that although both groups of friends are important during adolescence, same-sex remain more influential. It is also in line with Liem and Martin (2011) who had similar findings when peer friendships and self-esteem were measured across the adolescent spectrum. One of the reasons that opposite-sex peers may be less influential may be due to the fact that these relationships are less developed during mid-adolescence (Muuss, 1988) and therefore mid-adolescents may not feel as psychologically secure within them as they do within their same-sex group.

The hypothesis also predicted a significant relationship between best friends and self-esteem. This was not supported as no relationship was found between the quality and significance of best friends and self-esteem levels. This hypothesis is therefore rejected. Given previous research which highlighted the importance of intimacy for female relationships (Gilligan, 1977; Darling et al., 1999) and psychological well-being (McDougall & Hymel, 2007) this was an unexpected finding. The findings did not support Nangle et al. (2003) who found girls to be more reliant on the intimacy and self-disclosure that is found in small dyads. The concept of intimate female-female dyads was also not supported. The majority of participants reported their best friends' gender was mixed (42%), the majority also reported five best friends, the maximum number available to them as a response, only 6% reported one best friend. This may be due to the specific age category of this sample. Berndt (1999) found most adolescents report more than one best friend and Erwin (1998) proposed that mid-adolescent girls often view the larger group as a network of intimate close friends. These findings also reinforces the importance of peer groups for girls during this period (Warrington & Younger, 2011) which has been found in this study to have significant influence on self-esteem during this period.

4.2 Friendship and Self-Concept of School

The second hypothesis predicted that a significant relationship would exist between the three categories of mid-adolescent friendships, best friendships, same-sex friendships, opposite-sex friendships, and self-concept of school. The hypothesis was supported by only one of the friendships variables, same-sex friendship. A correlation was found between same-sex friendships and self-concept of school. The hypothesis with regard to same-sex friendship and self-concept of school is thus accepted. Further analysis using linear regression revealed that same-sex friendships had a prediction level of 20% on self-concept of school. This finding supports a lot of previous research that has highlighted the benefits of positive peer relationships on academic adjustment (Demaray et al., 2005), academic achievement (Vaquera & Kao, 2008; Eisele et al., 2009; Harper, 2006; Cooper & Datnow, 2000) and positive attitudes to school (Wilkinson, 2010). It also supports Eisele et al. (2009) who found that acceptance and support within the peer group was linked with academic achievement. Group memberships promotes interpersonal and cognition skills. This study has found that involvement in the same-sex peer group is correlated with higher self-concept and therefore self-confidence in mid-adolescent females, with regard to academic ability.

The hypothesis was not supported with regard to opposite-sex friendships and self-concept of school. No significance was found between opposite-sex friends and self-concept of school. The hypothesis was therefore rejected. This finding revealed that it is not just involvement in the peer group that impacts self-concept of school, but the gender of the peer group. This supports Hartup (1996) findings with regard to female-female group influence on school performance. It also supports Liem and Martin (2011) research that found that unlike same-sex peers, opposite-sex peers did not predicted academic performance, with this study

finding during mid-adolescence similarly opposite-sex friendships did not correlate with self-concept of school. One of the reasons that opposite-sex friendships may not be related to self-concept of school during this period of adolescence may be that they create a distraction and a complication. However, opposite-sex peers were not found to be negatively correlated with self-concept of school.

The hypothesis was also not supported with regard to best friendships and self-concept of school ability. This hypothesis is therefore rejected. Strough et al. (2001) research that found a negative correlations between friendships and academic problems was thus not supported. However, Strough et al. (2001) study was looking at early adolescents, when the importance of best friendships may have been more significant, as it has been found that it is during mid-adolescence that the importance of the wider peer group develops. Strough et al. (2001) found that adolescents preferred to work with friends in non-competitive setting, and this may in some way explain the findings of this study. Tesser (1988) self-evaluation maintenance model, predicts that individuals distance themselves from others who perform better on valued dimensions, but this is at an individual level (as cited in Baron, Byrne & Branscombe, 2006). The opposite is found when group identity is salient, Tajfel and Turner (1986) social identity theory (as cited in Baron et al., 2006). This may give some explanation as to why same-sex friends have a significant relationships with self-concept of school and best friends do not. In accordance with Tesser's theory it may be that rather than compromise the quality of the best friendships or lose the close friends, due to academic competition or comparison, the area of school competence and academic abilities are less salient in these relationships and consequently have no influence in self-concept, or self-confidence, with regard to school. Alternatively, the findings of this study could support Witkow and Fuligni (2010) who found that those of similar academic identities are draw together. In this regard the quality of the friendship would have no effect on self-concept of school, as the friendship

would only enhance whatever self-concept of school was already there. It is important to note the limitation of this conclusion however, as a significant relationship has been found with same-sex peers and self-concept of school. It seems unlikely that the academic identity of the best friendships and the wider same-sex friendships would be so diverse, if it is to be accepted that similar academic identity are drawn together. There is little research in the area of best friendships and mid-adolescent self-concept of school. It is recommended that further research is conducted to examine the dynamics of this particular category of friendship in more detail.

The second aim of this research was to compare mid-adolescent girls in two school environments, those who attended same-sex school and those who attended a mixed-sex school. It was hypothesised that a significant difference would exist between the two school groups, when compared against self-esteem, self-concept of school.

4.3 Self-Concept of School Compared Between Two School Groups

The hypothesis that predicted there would be a difference between the two school group and self-concept of school was supported. This hypothesis is therefore accepted. A significant difference was found between the two school groups, with girls attending same-sex schools found to have higher levels of self-concept of school than those attending mixed-sex school. This finding supports Chazal et al. (2012) which found that for girls not boys, interaction in a mixed academic environment whereby they were comparing themselves with boys, reduced the self-concept of their academic ability, this was found even when both groups girls and boys had equal levels of academic performance. Girls who attend same-sex school do not have these gender comparisons. Also, the academic benefits of attending a same-sex school may be explained by lack of distraction, in line with Vaquera and Kao (2008), who found that mixed-gender interaction in school had a negative effect on school

performance. An environment free of distraction without having to worry about the opinion of boys, especially at a time in development when opposite-sex friendships become salient, would therefore be an advantage.

Alternatively, this study has found that same-sex schools had a higher same-sex peer group when compared with mixed-sex schools. As same-sex friendships have been found to have a significant correlation with self-concept of school, and opposite-sex friendships were found to have no significant correlation, this may be another reason girls attending same-sex schools were found to have higher self-concept of school.

4.4 Self-Esteem Compared Between Two School Groups

There was no support found for the hypothesis that there would be a significant difference between the two school groups with regard to self-esteem. This hypothesis is thus rejected. It was expected that those attending mixed-sex school would have higher levels of self-esteem due to their regular daily interaction with both same-sex and opposite-sex peers. However, this study found that there was no difference in the self-esteem levels between those who attended either same-sex or opposite-sex schools. This is an interesting finding. Research has found that those who have positive opposite-sex friendships have higher levels of self-esteem, indeed the findings of this research have supported this hypothesis, with both same-sex and opposite-sex found to be significant predictors of self-esteem. This research has found that the majority of girls reported mixed peer friendships, and although the gender mix was found to be higher for those attending mixed-sex schools (61%), of those attending same-sex schools (42%) reported mixed peer friendships. This in line with Dunphy and Sullivan's theories, both of which predict that the gender mix of the peer group becomes mainly heterosexual during mid-adolescence. Also, although a higher percentage of girls who attended mixed-sex school reported mixed-sex best friends, over a quarter of those attending

same-sex schools also reported mixed-sex best friends. This would support both Bowker and Spencer (2010) and McDougall and Hymel (2007) findings that although greater opportunity may exist within mixed-sex schools to form and maintain opposite-sex friendships, these opposite-sex friendships can also be formed outside of school. As can be seen from the findings of this research, both school groups reported mixed-sex friendships, thus both groups have the opportunity to obtain the benefits of these relationships. This may explain why no difference was found between both groups.

4.5 Strengths and Weakness

This research specifically focused upon mid-adolescent girls and friendships. This research divided friendships into three different types, best friendships, same-sex friendships, opposite-sex friends. This distinction was an important one, as has been highlighted by this study. Each of the three categories had different effects on the two criterion variables that were measured, self-esteem and self-concept of school. This therefore gives a better understanding about female peer friendships during this developmental period.

The focus upon best friendships, as well as the other two categories, was also a strength of this study, even though none of the findings supported the initial hypothesis. This highlights the need for further investigation into the area of best friendships, specifically during mid-adolescence, to obtain a better understanding of the dynamics of best friendship during this period of female adolescent development.

The research examined mid-adolescent girls attending two different school environments, same-sex school and mixed-sex school. This was also a strength of the study as it was found that there was differences between the two groups when this distinction was made.

The study also found that although those who attended mixed-sex schools had higher mixed-sex peer groups, the majority of those attending same-sex schools also had mixed-sex peer groups. This is a further strength of this study as it highlights that it is not just the daily school environment that influences the development of the heterosexual peer group during mid-adolescence.

An area of weakness in this study was that the information requested and obtained, although informative, was too broad. No distinction was made between in-school and out-of-school friendships, a categorisation that may have been more informative when looking at self-concept of school. The research did not address whether the participants attended after school activities which may have given more information with regard to the correlation between same-sex friendships and self-concept of school.

Although the quality and significant of best friendships was asked, as most participants had more than one best friend an area of ambiguity exists as to whether the answers given to this instrument related to one distinct best friend, or whether the respondents chose more than one individual, or the group of intimate friends, when answering the questionnaire. To reduce this ambiguity, future studies should request more information from participants about how best friendships are understood by them.

4.6 Limitations

This research used a self-reported design and therefore the findings are not supported by other methods of data collection, such as structured interviews, data for other sources such as parents, teachers and peers. However, this research was focused on adolescents' self-concept of both self-esteem and school. The researcher therefore specifically choose self-reporting measures. The questionnaire was also completed during school times, in the presence of the respondent's classmates. This may influence how participants respond to

questions about their friends, however this limitation was a constant for all participants involved in this study. The sample size was quite small, and this limits the capacity for these findings to be generalised and further research would be needed before these findings could be applied to a general setting. However, even with a relatively small sample, significant findings were observed. This study was cross-sectional, so no information was gathered about the participants' friendships during early adolescence or late adolescence, therefore information with regard to the development of the peer group, and alterations that may exist in each of the friendships categories could not be ascertained.

4.7 Future Research

Following from these findings it is recommended that further research be conducted to examine the concept and dynamics of best friendships during this period, looking at areas such as mid-adolescent girls understanding of best friendships, what best friendships mean to them, and to also ascertain how these friendships are understood in the context of the wider peer group.

This study was cross-sectional. A longitudinal study that examine female best friendships at five different stages of development, late childhood, early adolescence, mid-adolescence, late adolescence and young adult, is recommended as this could examine how the significance and participants' understanding of best friendships may alter at each developmental stage. It is also recommended that this longitudinal research include the three categories of friendship, best friends, same-sex peers and opposite-sex friendships, as each of these categories have been shown to have different correlations with self-esteem and self-concept of school. This would give a comprehensive understanding of how each of these three dimension of female friendships alter throughout adolescence, and the different dynamics of each category.

Further research is also recommended with regard to same-sex friendships and self-concept of school. Studies that look at same-sex friendship and self-concept of school, which could include information to ascertain whether a correlation exists between same-sex friendships and positive promotion of school activities, such as extra curricular activities and after school clubs, academic support and academic encouragement and also examine if these relationships are reciprocal. This may bring further information which could be used to promote both school engagement and same-sex friendships.

Further research that examines the difference between same-sex and mixed-sex schools and the variable self-concept of school is recommended. This study looked at general self-concept of school, however further research could look at academic self-concept in greater detail, to ascertain whether this difference is found in specific academic subjects. This investigation would give further information about how the gender mix of school may impact at a more precise level, and particular aspects of school.

This study examined female mid-adolescent friendships. It is recommended that further studies investigate these friendship categories in mid-adolescent males, to examine how each of these friendship categories correlate with male self-esteem and self-concept of school. This information would enable a fuller picture of adolescent friendships, during the developmental period of mid-adolescence. The findings could also be compared to ascertain whether differences in the three dimensions of friendships exist between males and female during this time of development.

4.8 Implication and Applications

The findings of this study found that when friendships were divided into three categories the female-female peer group friendship had the strongest influence. Unlike either of the other two categories of friendship, this particular friendship category positively

correlated with both self-esteem and self-concept of school. The findings of this study would therefore imply that this particular friendship group has greater ability to influence female mid-adolescents with regard to their self-esteem and self-concept of school ability. Awareness of the importance of this particular group is recommended when interventions to assist and improve both self-esteem and self-concept of school for girls in this age group are being devised. This information is very applicable to teachers, youth workers, parents and all other adults working with this age group. Promoting, fostering and nurturing healthy, positive female-female group friendships should be encouraged as this could assist with improving self-esteem and self-confidence about school.

Opposite-sex friendships were found to be significantly correlated with self-esteem. This would imply that these relationships are also important to mid-adolescent girls and therefore should not be discouraged. Although no significant relationship was found between opposite-sex friendships and self-concept of school, alternatively, these friendships were not found to be detrimental to self-concept of school. Parents, teachers, youth workers and other adults involved with mid-adolescent girls can use this information to enhance their understanding of the importance of the expansion of the peer friendship group to include opposite-sex friends during this period of development. In this regard these friendships should be encouraged and recognised as a health area of female peer friendship groups expansion during mid-adolescence

Best friendships were not found to be significantly correlated with either self-esteem or self-concept of school. This implied that, although these relationships may be important, the importance or otherwise of best friendships was an area outside of this study, these relationships do not influence either self-esteem or self-concept of school for girls during mid-adolescence. This study suggests therefore, that for girls, having a best friend, or best friendships, during this period of development, is not in itself enough to influence either their

self-esteem or their self-concept of their academic abilities. This information can be used and applied by parents, teachers, youth workers and all other adults working with girls during mid-adolescent, it further highlights the importance of peer group membership during this time, especially female-female peer group. Programmes and information aimed at parents, teachers and youth worker, which seek to inform and promote mid-adolescent well-being and improve school performance, should consider the findings of this study with regard to the three distinct categories of friendships and self-esteem and self-concept of school ability.

This research also compared two school groups. It was found that mid-adolescent girls who attended same-sex school had higher levels of self-concept of school when compared with girls in a mixed-sex academic settings. Further details research is need to ascertain in greater detail whether this findings relates to all areas of school or specific academic subjects. Following from this, principals and staff of mixed-sex school may consider having certain classes where there is no gender divide, especially classes where higher levels of difference are found. Also, due to the significance found between same-sex friendships and self-concept of school, and the lower levels of these friendships found in mixed-sex school, teachers are advised to encourage and enhance same-sex friendships in mixed-sex school. No difference was found in the self-esteem levels of both school groups. This would suggest that in the area of self-esteem, the gender mix of the school has no impact. This information can be used by parents, when considering school options for their adolescent daughters.

4.9 Conclusion

This research examined mid-adolescent girls' friendship under three distinct categories, best friends, same-sex friends and opposite-sex friends to examine whether a correlation existed between each of these categories and levels of both self-esteem and self-

concept of school. The same-sex friendships were positively correlated with both self-esteem and self-concept of school. Opposite-sex peers were positively correlated with self-esteem, however no correlation existed between opposite-sex peers and self-concept of school. Best friendships were not found to have any correlation with self-esteem or self-concept of school. Female mid-adolescents who attended two different school environments, same-sex school and mixed-sex schools, were compared to examine whether there was any significant difference between these two groups as measured by levels of self-esteem and self-concept of school. A significant difference was found with regard to self-concept of school, whereby those who attended same-sex schools had higher levels of self-concept of school, when compared with those who attended mixed-sex schools. No significant difference was found in the levels of self-esteem between the two groups. These findings bring further information with regard to female mid-adolescent friendships.

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APPENDIX

Appendix A

RE: Permission to conduct research

<https://dbxprd0310.outlook.com/owa/?ae=Item&t=IPM.Note&id=R...>

RE: Permission to conduct research

Leah Bools, Deputy Principal [deputyprincipal@stkilianscs.com]

Sent: 07 November 2012 16:49

To: 1654801@mydbs.ie

Fiona,

You may conduct your survey in our school, I look forward to speaking with you in detail later on in the school year.

Regards,
Leah Bools

From: 1654801@mydbs.ie [mailto:1654801@mydbs.ie]

Sent: 07 November 2012 13:27

To: Leah Bools, Deputy Principal

Subject: RE: Permission to conduct research

RE: Requesting Permission to Conduct Research

<https://dbxprd0310.outlook.com/owa/?ae=Item&t=IPM.Note&id=R...>

RE: Requesting Permission to Conduct Research

Lorcan Byrne [lbyrne@loretobray.com]

Sent: 06 November 2012 17:02

To: 1654801@mydbs.ie

Dear Fiona,

Thank you for your email.

I received a letter from Ms Pauline Hyland who gave me further background information on your research.

So I am happy for you to come into the school in January to conduct the research and I agree that the Transition Year students would be the ideal group. Nearer the time you will be able to liaise with Ms Moira Moloney,

Transition Year coordinator, about the date and other details

If this email is not sufficient permission and you require a written letter instead, please let me know.

With best regards,

Yours sincerely,

Lorcan Byrne,

Principal

Loreto Secondary School,

Bray

Co. Wicklow

Tel: 01 2867481

Fax: 01 2867481

Appendix B**QUESTIONNAIRE**

My name is Fiona Morrissey and I am conducting research in the Department of Psychology that explores adolescent friendships. This research is being conducted as part of my studies and will be submitted for examination.

You are invited to take part in this study and participation involves completing and returning the attached anonymous survey. While the survey asks some questions that might cause some minor negative feelings, it has been used widely in research. If any of the questions do raise difficult feelings for you, contact information for support services are included on the final page.

Participation is completely voluntary and so you are not obliged to take part.

Participation is anonymous and confidential. Thus responses cannot be attributed to any one participant. For this reason, it will not be possible to withdraw from participation after the questionnaire has been collected.

The questionnaires will be securely stored and data from the questionnaires will be transferred from the paper record to electronic format and stored on a password protected computer.

It is important that you understand that by completing and submitting the questionnaire that you are consenting to participate in the study.

Should you require any further information about the research please contact Fiona Morrissey [REDACTED]. My supervisor, Ms Pauline Hyland, can be contacted at [REDACTED].

Thank you for taking the time to complete this survey.

Please note that:

- All answers are confidential and will only be used for research purposes.
- Your answers will not be used in any way to refer to you as an individual.
- After reading each statement please circle the one you feel is most appropriate for you.
- There are no right or wrong answers.
- Answer each statement based on how you are feeling right now.

Please circle the most appropriate answer:

Is your school

All girls

Mixed (Girls and Boys)

How many best friends do you have?

0

1

2

3

4

5

Are your best friend(s):

All Girls All Boys Mainly Girls

Mainly Boys

Mixed

Do you have a group of friends?

Yes

No

How many are in this group of friends?

1-3

3-5

5-9

10 or more

Is this group:

All Girls All Boys Mainly Girls

Mainly Boys

Mixed

Imagine the space in each item below contains the name of your **BEST** friend) and decide how much you agree or disagree with the sentence.

	Very Much Disagree		Some What Disagree		Some What Agree		Very Much Agree		
I am happy with my friendship with ____	-4	-3	-2	-1	0	1	2	3	4
I care about ____	-4	-3	-2	-1	0	1	2	3	4
I like ____ a lot	-4	-3	-2	-1	0	1	2	3	4
I feel my friendship with ____ is a great one	-4	-3	-2	-1	0	1	2	3	4
I am satisfied with my friendship with	-4	-3	-2	-1	0	1	2	3	4
I feel my friendship with ____ is good	-4	-3	-2	-1	0	1	2	3	4
I want to stay friends with ____	-4	-3	-2	-1	0	1	2	3	4
I prefer ____ over most people I know	-4	-3	-2	-1	0	1	2	3	4
I feel close to ____	-4	-3	-2	-1	0	1	2	3	4
I think my friendship with ____ is strong	-4	-3	-2	-1	0	1	2	3	4
I am pleased with my friendship with ____	-4	-3	-2	-1	0	1	2	3	4
I am glad that ____ is my friend	-4	-3	-2	-1	0	1	2	3	4
I hope I will stay friends with ____	-4	-3	-2	-1	0	1	2	3	4
I would miss ____ if she/he left	-4	-3	-2	-1	0	1	2	3	4
I am content with my friendship with ____	-4	-3	-2	-1	0	1	2	3	4
I enjoy having ____ as a friend	-4	-3	-2	-1	0	1	2	3	4

Please use the six-point scale to indicate how true (like you) or how false (unlike you) each statement is as a description of how you feel right now.

	1	2	3	4	5
People come to me for help in most school subjects	1	2	3	4	5
It is difficult for me to make friends with members of my own sex	1	2	3	4	5
People of the opposite sex whom I like, don't like me	1	2	3	4	5
I am too stupid at school to get into a good university	1	2	3	4	5
I make friends easily with boys	1	2	3	4	5
I make friends easily with girls	1	2	3	4	5
If I work really hard I could be one of the best students in my school year	1	2	3	4	5
Not many people of my own sex like me	1	2	3	4	5
I am not very popular with members of the opposite sex	1	2	3	4	5
I get bad marks in most school subjects	1	2	3	4	5
I am popular with boys	1	2	3	4	5
I am popular with girls	1	2	3	4	5
Most school subjects are just too hard for me	1	2	3	4	5
I learn things quickly in most school subjects	1	2	3	4	5

I do not get along very well with boys	1	2	3	4	5
I do not get along very well with girls	1	2	3	4	5
I have good friends who are members of my own sex	1	2	3	4	5
I have a lot of friends of the opposite sex	1	2	3	4	5
I do well in tests in most school subjects	1	2	3	4	5
Most boys try to avoid me	1	2	3	4	5
Most girls try to avoid me	1	2	3	4	5
I have trouble with most school subjects	1	2	3	4	5
I make friends easily with members of my own sex	1	2	3	4	5
I am good at most school subjects	1	2	3	4	5
I get a lot of attention from members of the opposite sex	1	2	3	4	5
I have few friends of the same sex as myself	1	2	3	4	5
I enjoy spending time with my friends of the same sex	1	2	3	4	5
I am stupid at most school subjects	1	2	3	4	5

THANK YOU FOR TAKING THE TIME TO FILL OUT THIS QUESTIONNAIRE**My Contact Details:**

Ms Fiona Morrissey

Email: [REDACTED]

My Supervisor's Contact Details:

Ms Pauline Hyland

[REDACTED]

If this questionnaire has raised any issues/ feelings that you may want to discuss further you can contact

Childline 1800 666 666

www.childline.ie or Text the word talk to 50101

Headstrong 01 472 7010

www.headstrong.ie

Samaritans 1850 60 90 90

www.dublinsamaritans.ie or Text 087 260 90 90

AWARE 1890 303 302

www.aware.ie