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Introduction

Sports can have a big role in the lives of people in many nations across the world. Different areas of the world have different sports that are most important to them. In the United States, there are four major sports. They are baseball, football, basketball, and hockey. In all but one of these sports, there is a basic path one must take to get to the professional levels. First, the athlete will play in high school, and then go to college, then get drafted and play in the "minor leagues", and then finally get to the pros. In hockey, there is another path that is available to the professional hockey hopeful. It involves

going to a major junior hockey league instead of college. Both of these paths have the

ability to help take a young hockey player to the National Hockey League (NHL). And

both paths will help prepare a young man for the rest of his life. But one is probably

more effective at doing this than the other. Playing major junior hockey has the benefit

of at least 68 games a season (depending on playoffs) and a similar every day schedule to

the NHL (Kennedy, 2011). Going to college will give an individual the chance to get a

degree, allows the very unique experience of being in college, and can let the athlete

spend more time at the gym while waiting for the next game (Chong, 2011). The

objective of this research was to determine if one path is better than the other. The

criteria used to determine this was which path produces more players that make it to

professional hockey after playing in that league. Determining this helped to answer the

research question of: Which path (Major Junior Hockey or NCAA Division I Hockey) is

more effective at preparing a young hockey player for a professional hockey career in the

future? Personal development was also looked at in the literature review. However, for

this research, personal development was not looked at when answering the research

question.

This issue of which path is better is important for several reasons. First, it is very

important to the player who is trying to make a decision between the two. Hundreds of

high school aged hockey players have to make this decision every year. And there are

many people who support each path whole-heartedly. The 60 CHL teams are allowed to

have 24 players on their roster. This means there are 1440 kids playing in the CHL. In

2011 there were a total of 1,568 Division I hockey players playing for the 59 schools

(Podnieks, 2011). This means there are at the very least, there were 3,008 hockey players

who have had to make this decision in the last four years (however this number is certainly higher because players frequently leave college or the CHL before their eligibility is up in order to follow other possible opportunities. Another reason this number is actually higher is that not everyone who goes to college is on the roster for games or could even be cut from the team).   Each young man could very well be getting advice several people who support different paths. This can make it extremely difficult for someone to decide between the two. If research were done to find out which path was statistically better for the individual, it would make the decision a whole lot easier. Another reason this is important is that it could potentially help NHL scouts and coaches. It could help them with choosing players to draft or sign. This would be most helpful for picking boarder line players. Depending on which path seems to be better, NCAA or major junior hockey, a scout might pick a lower end player who took one path rather than the other.

Literature Review

There are many different opinions on the question of which path is better. Many people form the Untied States believe that going the college hockey route is better (Dilks, 2013). More people in Canada think that major junior hockey is the better route (Custance, 2011). Either way, there are hundreds of people giving their opinion on the question, but not much actual research into it. This is evident by the number of blogs and articles there are on the subject. A simple search on Google about the CHL and NCAA hockey brings up many thousands of results. And by looking through many of these results, it would appear that Canadian based articles favor major junior hockey while the opposite is true for American based articles (Bourne, 2012). Either way, this is what is

known for sure. There are 59 Division I hockey teams and 60 major junior league teams

(Chong, 2011). This is convenient because it makes the two paths that much more

comparable. Major junior hockey is made up of three different leagues. They are the

Western Hockey League (WHL), Ontario Hockey League (OHL), and the Quebec Major

Junior Hockey League (QMJHL) (Fitzpatrick, 2012). These three leagues are brought

together by an umbrella organization called the Canadian Hockey League (CHL). The

CHL has a regular season schedule consisting of 68 games. The winner of each league

goes on to play for the Memorial Cup, which is basically the major junior hockey

championship. Players in this league are aged from 16 to 20 (21 year olds are allowed to

play in special cases) and the vast majority are from Canada and the United States

(Fitzpatrick, 2012). The 59 Division I hockey programs are split into five different

conferences. These NCAA hockey teams are allowed to play a maximum of 34 regular

season games (Fitzpatrick, 2012).

The reason a player must choose between college and major junior is that the

NCAA considers all players who play major junior hockey ineligible to play hockey in

the NCAA (King, 2012). The reason behind this is not because these players are "paid".

Players get billeted with local families and receive a small weekly allowance from the

team (Fitzpatrick, 2012). The main reason the NCAA considers CHL teams to be

professional is that there are a few players in the league who are under NHL contracts.

Sometimes, a NHL team will sign a player, and then end up sending him down to play in

the CHL because they feel he is not yet ready to play in the NHL or American Hockey

League (AHL) (Peters, 2012). The NCAA has a rule that basically says that any player

who is given more than is necessary to play, is considered a professional. And any

league that has professional players (those who are being paid by a professional team)

competing in it is considered a professional league (King, 2012).

Just because players can't play college hockey after having played in the CHL,

doesn't mean some players don't do just the opposite. The CHL welcomes players from

the NCAA and in fact actively try to recruit them to switch paths. The CHL really has an

advantage over the NCAA in recruiting players for several reasons. First of all, there are

basically no rules when it comes to CHL recruiting. CHL teams can start recruiting

players at any age, while college teams have to wait until the individual is of a certain

year in school (Peters, 2012). Division I college hockey coaches are not allowed to

initiate contact with prospective student athletes until June 15 of their sophomore year

(10th grade) in high school (Peters, 2012). The national letter of intent that players sign

when they do end up deciding on a school also becomes a factor. Signing this letter

means that a player has chosen which school he is going to and therefore no other NCAA

teams are allowed to recruit the player (Peters, 2012). However, CHL teams don't care

about this since they don't have to follow NCAA rules, and will continue to recruit the

player. In 2011, there were four players selected in the first round of the NHL draft that

had made college hockey commitments. Two of these players had signed national letters

of intent to go to high level college schools and one of them was going into his

sophomore year in college. Those three players changed their minds and decided to sign

with CHL teams prior to the start of the 2011 season (Peters, 2011).

Unfortunately for college hockey, there is nothing the NCAA can do about

players leaving to play in the CHL because it has no jurisdiction over Major Junior

Hockey. However, the NCAA has done something to try and help get players into

college hockey. They have helped to create College Hockey Inc. The job of this

organization is twofold. Paul Kelly, who is the executive director of College Hockey

Inc., says he wants, "to stem the flow of players leaving for the CHL and attract elite

Canadians to college hockey," (Podnieks p.1, 2011). Kelly also said that, "there were 67

American players in Canada's junior leagues six years ago, now there are 131. As a

result, there was a feeling among college coaches that the NCAA product had become

diluted." (Podnieks p.1, 2011).   However, this organization can only do so much and

must still operate within the laws of the NCAA. College Hockey Inc. tries to achieve

their goals by doing several things. The big thing they have is a very extensive web site.

Not only do they provide stats and scores for all the NCAA hockey teams, the site also

gives information on recruiting, NHL opportunities, and a big section on why an

individual should play college hockey (Farber, 2012).

Education is another factor that can be considered when deciding which path is

better. Obviously college hockey players are getting a degree while they are playing.

Major junior hockey players are not doing this. However, that doesn't mean all of these

players go without schooling. The CHL does have an education program. For every year

a player plays with a CHL team, the CHL will pay for that amount of time at college

(Kennedy, 2011). So if a player plays for two years in the CHL, the CHL will pay for

that player's first two years of college. However, many of these players don't utilize this

(at least not fully). While the NCAA found that 88.5% of men's college hockey players

were graduating in 2011, only about 20% of major junior players go on to earn a college

degree (Podnieks, 2011). Going to college and earning this degree can be very important

later in life and to the overall development of an individual.

RUNNING HEAD: CHL OR NCAA HOCKEY

     Getting a college degree is an important part of developing a person. It can certainly impact the choice a player must make between the two paths. Going to college affects parts of an individual's development emotionally, cognitively, and physically. Getting a degree can also set up a person for a better life after they are done playing sports. It will give an individual the potential to make more money in the future as well as find a quality job.   For all the reasons above, a college degree can be even more important during a time of recession. The number of people with jobs before the 2008 recession, who only had a high school diploma, went down 8% during the recession. Of those who graduated from college, only about 6% lost their jobs (Perez-Pena, 2013). This means that when companies were laying off employees, college graduates were seen as being more important to the organization than those who did not attend college.

     There are also other ways in which going to college can be very advantageous to the development of a teenaged individual. Research done by W. Astin breaks down what exactly is gained from going to college in a cognitive sense. Cognitive intelligence has been defined as a general mental capability that, among other things, involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experiences (Astin, 1993). This information was put together after a study of more than 20,000 students, 25,000 faculty members, and 200 institutions. He says that there are several specific cognitive, as well as value based benefits to going to school. He found that students have more highly developed higher order mental processes. These higher order mental processes include critical thinking, academic achievement, and logic and reasoning (Astin, 1993).

Another way college is very important to an individual is shown by Patricia S Lally and Gretchen A. Kerr. Through their research, they found that some student athletes will focus more on their school work and studies as they get older. They found this through interviewing student athletes. The interviewees entered college with vague or nonexistent career objectives and invested heavily in their athletic roles. Basically, they found that if the student saw that their athletic career was going to end after school ended, they started to focus more on school work towards the end of their junior and senior years (Lally & Kerr, 2005). A player in the CHL wouldn't necessarily be able to do this. If a CHL player knew his career wasn't going to last past that season, he couldn't just stop playing because he is under contract for the entire season. This research was done using both male and female students at the Division I level. These students were all found to have little to no idea what they wanted to do after college but were heavily invested in their athletics when they arrived at school (Lally & Kerr, 2005).

A study by T. Jenney also focused on what students gain from attending college. This research was done in order to find out what the main factors were when it comes to character development in college students. The goal was to better understand and highlight the variables that predict pro- social character development in college students. This type of character development is considered emotional intelligence because the ability to have good social behavior comes from the ability to control emotions. This research was done by doing surveys on a representative sampling of college students comprised of first-year students in the fall of 2000 at forty-six colleges and universities. The determination of the research was that there were several predictors of pro-social character development in students. These predictors included involvement in school

sponsored activities, personal goal setting, and values related to spirituality (Jenney, 2012).

The definition of emotional intelligence involves four things: (1) the ability to perceive accurately, appraise and express emotion; (2) the ability to access and/or generate feelings when they facilitate thought; (3) the ability to understand emotion and emotional knowledge; and (4) the ability to regulate emotions to promote emotional and intellectual growth (Basu & Mermillod, 2011). These skills have been shown to enhance communication behavior in work groups and improve the quality of student responses to various business scenarios (Sigmar, Hynes, & Hill, 2012). These skills are so valuable in the workplace because it is very important for an individual to be stable with their own emotions and also be able to understand other people's emotions. This is because it will be much easier to learn how to communicate with co-workers and therefore work well with them.

Emotional maturity is can also be very important in sports as well as the workplace. It is the ability to experience, understand and express one's own deepest feelings in the most appropriate and constructive ways. Emotional maturity, the ability to act on and react to life circumstances with intelligence, sound judgment and wisdom, affects sports performance quite significantly (Rathee & Salh, 2011). This was found by looking at international, national and state level handball players of India. To evaluate the levels of emotional maturity among the subjects, they were administered the Emotional Maturity Scale constructed by Singh and Bhargava (1988). This Scale measured emotional maturity through five subscales. They were: Emotional instability, emotional regression, social maladjustment, personality disintegration, and lack of

independence as well as overall emotional maturity. After collecting and analyzing the

data, significant differences were found between the three performance groups on all the

subscales along with overall emotional maturity. International level players

demonstrated significantly higher levels of emotional maturity as compared to the other

two performance groups (Rathee & Salh, 2011). The results of this study show that

emotional maturity is a very important attribute for players performing at higher levels of

competition.

Another study that looked at the student takeaway from college also looked at the

importance of emotional development. Research has shown that emotional intelligence

skills are just as important, if not more important than, job-related skills (Shivpuri &

Kim, 2004; Goleman, 1998). Emotional intelligence would seem to be an excellent

framework to use in helping college students find a job and succeed in the workplace. By

using the Confluence Counseling model, counselors working with college students have

been effectively helping to develop the emotional intelligence of college students (Liptak,

2005). This research is important because it gives another example of why going to

college can be very important to those who will be looking for a job after they graduate.

Studies have shown that college athletes can benefit from increased college

engagement in ways similar to the general student population. There has also been

research that would suggest that student athletes gain slightly different skills from college

than the rest of the students. This was determined by looking at things that students

regularly do such as interacting with other students, faculty, and participating in academic

related activities. Athletes were shown to benefit in similar ways as the rest of the

student population from doing these things while at school. This was clear because they

showed increases in cultural attitudes, positive self-conception, and gains in learning and communication skills (Gayles, 2009). These results would suggest positive emotional development in athletes who attend college.

Another study that looked at the different college experiences of students and student athletes was done by S. Marina and B. Sabah. This research involved sampling 200 students. The gender of these students was mixed but 100 were athletes and 100 were not. The study was done in order to determine if there was any difference in personality characteristics between athletes and non-athletes in college. The characteristics that were looked at were neuroticism, extraversion, agreeableness, conscientiousness, and, openness to new experiences. They found that neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness were significantly different between the two groups. Results showed that participation in sports has a positive effect on the personality characteristics of students. Athletes also have more positive personality characteristics than non-athletes (Marina & Sabah, 2008). This is important because it shows that there is a difference in the college experience depending on whether or not a sport is played during college. It also shows that student athletes can potentially have more positive emotional development during college than even the general student population.

A study done in 2004 wanted the opinions of student athletes. The researchers wanted to know what student athletes thought were the most important things they learned in college that would be useful in a work setting. This research was collected by administering 143 NCAA Division II athletes the Life After Sports Scale (LASS). This scale was designed by the authors and was meant to assess what benefits student athletes

valued most after attending college. Three major themes emerged from participants

responses. Career path planning, balancing academics and athletics, and having a

positive role model were the three things that these student athletes valued the most

(Harrison & Lawrence, 2004). This research is important because it shows what student

athletes have learned in college and what they found most useful.

It would seem that there is a lot of research on how college can better prepare

students and student athletes for later in life. This preparation comes in the form of, not

just things learned in the class room, but the cognitive and emotional development that

occurs while attending college and doing things other than just going to class. However,

there are some things that can't be learned or developed at college. One of those things is

knowledge about how to deal with the daily struggles and pressures that are placed on

NHL players. A study was done to learn more about these challenges that pro hockey

players face. Interviews were conducted with three different groups of NHL players.

Three rookies, three veterans, and three retirees were randomly selected for this process.

The most common problems that these players mentioned were scouting demands,

athletic demands, and team expectations (Battochio, Schinke, Eys, Battochio, Halliwell,

& Tenenbaum, 2009). This information would be very valuable to young players

because it can help them to better understand what the NHL has in store for them. The

way for players to learn how to deal with these hardships however, would certainly not be

at college since college teams are only allowed to play 34 games over the course of a

season (Fitzpatrick, 2012). The CHL's game and practice schedule is much more similar

to the NHL's than the NCAA's. Therefore, in order to experience these things before

actually getting into professional hockey, a young hockey player would have to play in the CHL.

The CHL and NCAA paths differ in many ways. The biggest ways would have to do with the different experiences and level of education that is obtained. These two things lead directly to differing levels of development in terms of emotional and cognitive growth. But another big factor in deciding which path is better would be the physical development that is gained. Obviously, when a person is 17 or 18 years old, they will usually still have a lot of growing up to do on their own, both mentally and physically. However, playing hockey in either college or the CHL can certainly have differing effects on the physical development of individuals of this age. In college, there are fewer games played (around 34 games compared to the approximately 68 in the CHL) and therefore more practices (Fitzpatrick, 2012). This also means there is much more time for things like working out. It's not uncommon for players to add 20 pounds during their college careers from working out. This can allow for significant increases in on-ice speed, strength, power and explosiveness. College freshmen also end up competing against older, stronger and faster opponents (Chong, 2011). This can help in accelerating their physical development. With the focus on what is usually two games a week, college hockey provides an on ice intensity level that is very high. The CHL will also help along the physical development of a young hockey player. With so many games in approximately a six month period, players will certainly be in very good hockey shape. This type of schedule is very similar to that of the NHL, which plays an 82 game regular season schedule in a seven month span. The CHL would better prepare a player for the everyday grind of NHL hockey (playing 3 to 4 games a week with a lot of traveling in

between) while college would give a player more of an opportunity to focus on getting stronger and faster (Chong, 2011). Both paths have high up sides and very little down sides when it comes to the physical development of its players.

Methodology

Research Tradition

In this paper, I have used a post-positivism approach, and secondary data, to help with the completion of my research. This approach uses the concept that knowledge is relative, and not absolute. It is also used by going from simply observing what is happening in certain situations to then drawing conclusions and constructing a theory (Gratton, 2010). This approach can be used with both qualitative and quantitative data, but I have just used qualitative data. This is important to understand within the scope of my research because there are other factors at work when it comes to individual players and how they develop as hockey players. Sometimes things like injury or personal problems can get in the way of their careers. So, just because one player doesn't make it to professional hockey, it can't also be said that it was because the league he played in didn't prepare him well enough. For the most part however, injuries and other problems don't play a role in professional development. So while it can be accepted that the research is accurate, not every player is the same, and not everything we assume about them is completely accurate. There are other variables that could have an effect on the study as well. Things like coaching and the schedule that each player has on a day to day basis. Unfortunately, in this study, it was not possible to control for any variables except which league the players were in.

Conceptual Framework

Secondary data was used in an exploratory study to determine which hockey path

is more likely to result in a professional playing career. To find out whether the college

hockey path or major junior hockey path is better, guidelines needed to be created to

define what it means to be "better", and which path better prepares an individual for the

future. There a couple factors that are used to get to this definition. The first factor is the

number of players that go to professional hockey after leaving the path they were on. If a

player makes it to a professional hockey league, it will be considered that the path they

took to get there worked and prepared them well. Making it to a professional league

shows that the player has the potential to make a career out of hockey and could make a

living just by playing. Another factor is, how playing and being a part of one path effects

an individual's personal development (physical, cognitive, and emotional). This factor

will be talked about farther in the discussion section.

Theoretical Framework

My research is designed to find the difference between the NCAA's and CHL's

ability to launch a player's professional hockey career. I have been looking at several

variables that go into having a career. These variables have looked at the factors that go

into a person's development and how it could affect their future job success. This

theoretical frame work has a lot to do with the discipline of Psychology. It would have

the field of personal developmental and three sub fields of emotional, cognitive, and

physical development. One theory that could be used to help understand the data that is

collected is the skill theory. This provides tools for predicting developmental sequences

and attempts to understand the development of the human mind. Skill theory is designed

to look at and understand the development of a person's mind and actions. The theory

offers a framework for describing, analyzing, and explaining how other people and the

world affect human development (Fischer, 2001). This could therefore be used to explain

why people might develop more fully while playing in one league over another. This

would be most useful in a future study that looks strictly at personal development in each

league. That future research would be very interesting to look into once it has been found

if one league does indeed produce more professional talent than the other.

Design

My data collection is cross sectional as it has all happened at one time. The

majority of the data I have collected is from the 2008-2009 hockey season. I am also

collecting data on individual hockey players that comes from as recently as this year.

The data I collected was information about how far each player made it in his hockey

career. This data is being collected all at one time from different online sources.

Sample

My subjects are made up of hockey players that formerly played in the CHL or

NCAA DI Hockey. I used stratified random sampling to select six players each, from a

randomly selected 20 of the teams, in both of the leagues. Three of these players were

forwards, two were defensemen, and one was a goalie. I got the data for my sample from

NCAA and CHL individual team websites. The way I went about answering this

research question was by collecting secondary data from past CHL and NCAA DI hockey

teams. The data I collected from my sample of hockey players was used to determine

which hockey path (NCAA DI or CHL) has produced more professional players. I have

chosen to select a certain number of players at each position because it is most indicative

of how many players at each position would be on each professional team. It is safe to

assume that, in any given draft, more forwards than defensemen, and more defensemen

than goalies would get selected. That is also how every single hockey roster in the world

is set up. This is because there are three forwards, two defensemen, and one goalie on the

ice at a time. In addition to all this, there are a nearly equal number of teams in each

league with a very similar number of players on each team. This has given me a good

range of players to look into.

Procedure

The players were found by acquiring the rosters from the CHL and NCAA teams

from five years ago (the 2008-2009 hockey season). The rosters from that season are

available on all of the team websites. I then used stratified random sampling to select the

players that I will be looking into. I kept the players grouped into the teams that they

played for during the given season and then, as stated above, I used a position bias when

finding which individual players to look at. I then randomly selected the six players from

each team by using Excel to generate random numbers for me. If the generated number

matched up to a player with that number, he was selected. I looked at every third team in

both the CHL and the NCAA. The teams were selected by putting every CHL and DI

hockey school in a list (in alphabetical order) and assigning each team a number. The

first team was 1; the second team on the list was 2, and so on. I then used Excel to

generate random numbers until 20 teams we selected. These lists were originally found

on the NCAA and CHL league websites. This was done because looking at every team

would take too much time and wouldn't necessarily be productive. However, I have

looked at six players from each team because not every team has the same amount of

talent. Selecting six players from each team kept the sample at a manageable size while still getting a good overview of the data. Once a player was selected, I researched what he did in the rest of his hockey career. If he continued into professional hockey, the path he was on was considered to be successful in preparing him for a professional hockey career. Data on where these players ended up is available on the Internet. The two sources that were used were HockeyDB.com and Eliteprospects.com.

Analysis

In the analysis of my data, I looked at statistical differences between the NCAA and the CHL. I used Chi- squared tests and looked for a p-value of at least .05 to shows significance. I then compared the leagues based on the data that I find about how many players have gone on to professional careers. I then compared the number of players that went to the National Hockey League (NHL), American Hockey League (AHL) (the minor league affiliates of NHL teams), as well as other foreign professional leagues. I took the numbers from all these statistics and made a grand total. Completing this analysis will show me if there is indeed a significant difference between the two leagues in terms of how many professional players they produce.

Results

The sample I used included 180 subjects. These subjects played in either the CHL or in NCAA DI hockey during the 2008-2009 season. They were anywhere from 16 to 24 years old during that season and played in that league for at least that one full season. After collecting the data on these subjects, it was found that there is indeed a relationship between which league a player plays in, and where that player will end up in his professional hockey career. The raw data showed that while more players ended up

going to the NHL after playing in the CHL, more total players went to professional leagues overall after attending a DI college hockey program. Ten players from the CHL played in the NHL at some point in their career, while 24 altogether had some kind of professional career. The college hockey route yielded 8 NHL players, but 44 professional players overall, 20 more than the CHL was able to produce.

After collecting all the raw data, a Chi- square test was used to determine the significance of the numbers. When doing these tests, I was looking for a p-value smaller than .05 to show significance in the data. The first test showed that there was a significance of .004, which would be considered moderately significant. The only problem with this data is that there was a value less than 5 (a 3 in the foreign pro end result for the CHL) in the count. Because of this, another Chi- square test was done, but this time some of the data was combined. This was done by combining the four categories of data about which specific professional league was reached, and then merging this into just two categories.

	NCAA	CHL	Total
NHL	8	10	18
AHL	29	11	40
Foreign Pro	7	3	10
None	46	66	112
Total	90	90	180

		Chi-Square Test		
		Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square		13.494	3	0.004
Likelihood Ratio		13.857	3	0.003

This new test simply showed if players reached a professional league at all based on the path they took. After completing the Chi- squared test, it was determined there was a .002 level of significance between the path and the end result. Again, this would be considered moderately significant, and is important because it shows that there does seem to be a relationship between which path a player takes, and his chances of making it to professional hockey. More specifically, it shows that the college route gives a player a better chance of a professional hockey career than the CHL. This can be determined because when looking at the data, there is clearly more college players going pro than CHL players. Because the sample size is the same, and 20 more college players went pro than CHL players, it can be said that NCAA DI players have a better chance at going on to a professional career than CHL players in the given year.

	Professional	Nothing
College	44	46
CHL	24	66
Total	68	112

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-Sided)	Exact Sig. (2-Sided)	Exact Sig. (1-Sided)
Pearson Chi-Square	9.454	1	0.002		
Continuality Correction	8.532	1	0.003		
Likelihood Ratio	9.561	1	0.002		
Fisher's Exact Test				0.003	0.002

Discussion

The results of this study have been very interesting. Before actually researching very far into this topic, I had hypothesized that more CHL player would go onto professional careers than NCAA DI hockey players. Even as I ventured further into my research I believed this would be the case. However, the results have shown that more college players are actually going onto professional careers than those who play in the CHL. This was very surprising to me and difficult to explain. Throughout the literature review, there is much talk of how the development of a person can be different depending on the experiences they go through. For example, the study done by Liptak in 2005 showed that emotional intelligence that is developed in college is extremely important in a workplace. Based simply on this previous research, it's clear what path seems to be better, but the next question that needs to be answered is why. From prior research, it seems clear that there is a great deal of person development is occurring in college. This could help explain the differences in my data because the college path seems to be helping the players to develop more fully mentally and physically. Another big difference between the two paths is the structure of the league. In college, there are fewer games played and much more time for practice. The CHL is set up a lot like professional hockey, with quite a few games and much less down time. This could also play a role in the differences in the data because that down time in college can be used for things other than strictly hockey. It has been shown that personal development is occurring in college both in and out of the classroom. The downtime could also be used for working out and getting stronger.

Overall, there are many variables that could be affecting the data. Coaching, league structure, scouting opportunities, personal development differences, and many other types of experiences that would be different from one league to the other could all be making some type of an impact. Even the position they play could have had an impact. Maybe NHL teams were looking for more forwards in a particular season and though one league produced better forwards than the other. All I have done is show that there is in fact a relationship between the path that is chosen, and a player's chance of making it to professional hockey. This is important because it opens the door for future studies that could go more in depth and look at some of the variables that make the two paths different. If it were possible to come up with an answer as to why one league is better than the other, it would be very beneficial to individual players as well as hockey as a whole.

Future recommendations I would make in terms of this study, and any study that may follow would have to start first with the limitations I faced. The sample size I used was actually not that large. It was just a snap shot of one year of CHL and NCAA hockey. There were about 1,500 players in each league, and I only sampled 90 of them. Meaning I only sampled about 6% of the total population. Also, I only took a sample of one season. Obviously, many players stay in the league for a few years, but I'm sure there were some years where more players ended up going on to professional hockey than others. That leaves a lot of room for variance. I was only able to sample that number of players in just one year because of time constraints. If I were to do this again, I would sample more players per year season and I would also take a sample from several different seasons. Using more players and using multiple seasons would make my data

much more reliable. There were also a couple reasons as to why I only looked at the

statistical relationship between each path and professional hockey. First of all time was

again a problem here.

Second of all, I did not have much access to my sample. So I really couldn't look

into any variables that were specific to each path. For this research it means that even if I

wanted to look into <u>why</u> one path was better than the other, I really couldn't. As talked

about before, personal development seems to be different in each path. If I could look

deeply into a sample of players from each league and have interaction with them, I could

see more easily what the differences are. It would also be beneficial to look into the

variables like coaching and scouting opportunities. Having more access to the players

and teams overall would be extremely helpful in being able to look more deeply into

these variables.

Conclusions

This research sought to answer the question of which path does a better job of

producing professional hockey players. Both the CHL and NCAA have sent many

players onto professional careers. This research managed to find that one seems to be

more effective at doing this than the other. This was accomplished by collecting data on

90 players during the 2008-2009 season from each path and running statistical tests. The

tests showed that there was a significant relationship between playing college hockey and

going on to a professional hockey career. This is very important to hockey as a whole

because it shows that one path really is better than the other. Further research is needed

to more fully understand why this occurred.

References

Allain, K. A. (2008). "Real Fast and Tough": The construction of canadian hockey masculinity. *Sociology Of Sport Journal*, 25(4), 462-481.

Allen, T. W. (1988). The cognitive bases of peak performance: A classroom intervention with student-athletes. *Journal of Counseling and Development, 67*(3), 202-203.

Astin, A. W. What matters most in college? *Four Critical Years Revisited*. San Francisco: Jossey-Bass, 1993.

Basu, A., & Mermillod, M. (2011). Emotional Intelligence and Social-Emotional Learning: An Overview. *Online Submission*, *Psychology Research*. September 2011; 1(3) 182-185.

Battochio R, Schinke R, Eys M, Battochio D, Halliwell W, Tenenbaum G. An examination of the challenges experienced by canadian ice-hockey players in the national hockey league. *Journal of Clinical Sport Psychology*. September 2009; 3(3):267-285.

Bourne, J. (2012, May 11). My experience with the choice between major junior and college hockey. Retrieved from http://blogs.thescore.com/nhl/2012/05/11/my-experience-with-the-choice-between-major-junior-and-college-hockey/

Buczynski, P. L. (1991). The relationship between identity and cognitive development in college freshmen: A structural equation modeling analysis. *Journal of College Student Development, 32*(3), 212-222.

Chong, A. (2011). CHL vs. NCAA: what's the better route?. *Ontario Hockey Now*, *10*(3), 3-4.

Custance, C. (2011, August 30). Nhl watches as colleges wage war with canadian junior hockey, *Sporting News NHL*. Retrieved from http://aol.sportingnews.com/nhl/story/2011-08-30/nhl-colleges-wage-war-with-canadian-junior-hockey-ohl-whl-qmjhl

Dilks, C. (2013, February 27). High school hockey coaches declare war on CHL. Retrieved from http://www.westerncollegehockeyblog.com/high-school-hockey/2013/2/27/4036658/high-school-hockey-coaches-declare-war-on-chl

Farber, M. (2012). It's All About the Hockey. Sports Illustrated, 102(15), 62.

Fischer, K. (2001). *The development of dynamic skill theory*. (Master's thesis).

Fitzpatrick , J. (2012). *What is major junior hockey*. Retrieved from

http://proicehockey.about.com/od/juniorhockeyresources/a/What-Is-Major-Junior-Hockey.htm

Gayles, J. (2009). The influence of student engagement and sport participation on college outcomes among division I student athletes. *Journal Of Higher Education*, *80*(3), 315-333.

Goleman. D. (1998). *Working with emotional intelligence.* New York: Bantam Books

Gratton, C. (2010). *Research methods for sport studies*. (2nd ed.). New York, NY: Routledge.

Harrison, K. C., & Lawrence, S. M. (2004). Female and male student athletes' perceptions of career transition in sport and higher education: A visual elicitation and qualitative assessment. *Journal of Vocational Education and Training, 56*(4), 485-506.

Jenney, T. J. (2012). The holistic development of college students: spirituality as a predictor of college student's pro-social character development. *Culture & Religion Review Journal*, *2012*(4), 56-145.

Kennedy, R. (2011, November 7th). CHL education opponents way off base. *The hockey news*. Retrieved from http://www.thehockeynews.com/articles/48807-CHL-education-opponents-way-off-base.html

King, P. (2012, February 8). Misguided anger from the NCAA. Retrieved from http://www.sportsnet.ca/hockey/juniors/2012/02/08/king_ncaa_chl

Lally, P. S., & Kerr, G. A. (2005). The career planning, athletic identity, and student role identity of intercollegiate student athletes. *Research Quarterly for Exercise and Sport, 76*(3), 275-285.

Marina, S., & Sabah, B. (2008). Comparison of personality characteristics athlete and non-athlete student, islamic azad university of ahvaz. *Procedia - Social And Behavioral Sciences*, *30*(2nd World Conference on Psychology, Counseling and Guidance - 2011), 2312-2315.

Perez-Pena, R. (2013, January 9). Benefits of college degree in recession are outlined. *nytimes.com*. Retrieved from http://www.nytimes.com/2013/01/10/education/study-shows-college-degrees-value-during-economic-downturn.html?_r=0

Peters, C. (2011, July 27). NCAA/ CHL battle heating up. Retrieved from http://citationmachine.net/index2.php?reqstyleid=2&mode=form&rsid=14&reqsr cid=APAweblog&more=yes&nameCnt=1

Peters, C. (2012, July 18). A beginner's guide to the chl vs. ncaa recruiting battle. Retrieved from http://unitedstatesofhockey.com/2012/07/18/a-beginners-guide-to-the-chl-vs-ncaa-recruiting-battle/

Podnieks , A. (2011, February 9). A battle across the border in recruiting. *New York Times*. Retrieved from http://www.nytimes.com/2011/02/10/sports/hockey/10hockey.html?_r=3&ref=sports&

Rathee, N. K., & Salh, M. (2011). An Investigation of Emotional Maturity among International, National and State Level Players. *International Journal Of Sport & Society*, *2*(4), 73-81.

Sadri, G. (2012). Emotional Intelligence and Leadership Development. *Public Personnel Management*, *41*(3), 535-548.

Shivpuri, S.. & Kim, B. (2004). Do employers and colleges see eye-Io-eye? College Student Development and assessment. *NACE Journal, 65,* 37-44.

Sigmar, L., Hynes, G. E., & Hill, K. L. (2012). Strategies for Teaching Social and Emotional Intelligence in Business Communication. *Business Communication Quarterly*, *75*(3), 301-317.

Temel, V., Akpinar, S., & Nas, K. (2012). The effect of sport activity to the education on social development, mental development, schooling development and physical development in turkish students of public administration. *Ovidius University Annals, Series Physical Education & Sport/Science, Movement & Health*, *12*(2), 264-269.

Wang, N., Young, T., Wilhite, S. C., & Marczyk, G. (2011). Assessing students' emotional competence in higher education: Development and validation of the widener emotional learning scale. *Journal of Psychoeducational Assessment, 29*(1), 47-62.