CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1) SUMMARY

A short summary will be presented of the course that this study has followed, as discussed in the preceding chapters. The most important conclusions of this study will be presented and discussed, followed by recommendations that will flow from these discussions.

As has been mentioned numerous times in this study before, South Africa has a proud sporting tradition, with an excellent if not enviable record. Even our post-isolationist sporting record is impressive, with victories against all our traditional "foes", including probably our proudest moment, winning the Rugby World Cup in 1995 and in so doing becoming the world champions.

Other note worthy achievements have been winning the African Cup of Nations Football Championships in 1996 and reaching the semi-finals of the 1999 Cricket World Cup, as well as the semi-finals of the 1999 Rugby World Cup in the same year. Certain other performances cannot be forgotten, namely when we think of certain of our achievements at the Olympic games in the 10 000m ladies race, the men's doubles tennis, the marathon for men and our swimmers and not to mention our golfers who do us so proud. We are also highly competitive with hockey and netball.

The point cannot be argued more convincingly that we have strong representation in international competitions. What needs to be remembered however is that, as a proud nation with a proud record, we would love to continue in the same vain. It is this author's opinion that we need not worry about our pools of talent in the above-mentioned sports types, as the talent is present, albeit in an unidentified, unnoticed, undetected or undeveloped form.

What this does emphasize however is that this talent needs to be identified, noticed, detected and when all of this is done, developed and nurtured. It has been discussed at length in not only this study, but numerous others that once talent is identified, it needs to be developed and maintained and encouraged to flourish and reach it's fullest potential.

According to Hare (1999) we are in competitive sport world, and that when participating in this competitive sport world that there is already a search for potential champions at a young age. According to Bloomfield (1994) it is this reason that necessitates the identification of talent at a young or early age. In the last two decades of the previous century, the East Bloc countries in particular achieved good results when it came to the terrain of talent identification following scientific methods amongst young children (Du Randt & Headley, 1993).

According to Salmela & Règnier (1983) talent identification is a long-term process whereby potential sports participants are identified in a particular sports type and then developed further. As argued above, South Africa needs to remain competitive in the international sports arena, and in so doing we need to remain up to date on the latest techniques and technologies regarding talent identification.

The country realized, upon readmission into the international fold, that the isolation we experienced was a major factor in our falling behind regarding the scientific methods used in talent identification by the rest of the world. It seems obvious that for future talent, a look needs to be taken at today's youngsters, those who are already showing promising signs of talent, and even those who may not yet be showing these signs of talent but could still have potential to reach the top.

As an addendum, however, it must be stated that the influence and effect of growth, development and maturation need to be considered as this can influence the achievement of sports participants (Hare, 1999).

As mentioned in the previous paragraph, there may be some participants who may, as of yet not be showing any overt signs of talent, but who may have latent talent that will come to the fore only later in the participant's life.

When the structure of this study is reviewed, the following will be found: chapter one contains the introduction and brief overview of what is to follow in the subsequent chapters. What is mentioned however, is the focus and goal as well as the hypothesis of this study, and this is worth revisiting. It consists of the following:

The focus of this study is to use existing data concerning 12 year-old rugby players. Discriminant analysis has been done on the sample group, with specific results obtained. Logistical regression is then done to determine if the tests needed for this method differ from those obtained in discriminant analysis.

The goal of this study is to perform a statistical comparison between discriminant analysis and logistical regression regarding the development of prediction function by using existing data concerning 12 year-old rugby players. Discriminant analysis has been done on the sample group, with specific results obtained.

Logistical regression was then performed on the same sample group to determine if the collective predictive functions differ in terms of talented and less talented players. A comparison was then made with the results discussed regarding the benefits of the two methods and the approach needed by coaches, researchers and the sporting authorities in this country.

The hypothesis of this study is that there is a difference between the results obtained by the discriminant analysis and logistical regression methods regarding the prediction of talent and the establishing of prediction functions.

Further questions that were asked were:

- If there are differences in the result obtained by the two methods, are these differences significant?

- Can these differences in the findings of the two methods, if any, mean the difference between success and failure or the overlooking of a talented player in favor of a less talented player?

- Is there a way to combine these two methods to form a more accurate method?

- Could this study perhaps help South Africa in the current situation that we find ourselves regarding the identification of talent in the previously disadvantaged communities?

Chapter two consisted of an in-depth literature review, not just in terms of existing literature on this subject, but also a review of the respective predictive methods that formed an integral part of this study. Conclusions regarding the above methods will also be discussed in the following pages.

Chapter three reviewed the empirical investigation followed in this study. Each test was completely explained in terms of apparatus used and methods followed. Chapter four was a review of the results and a discussion of the results. While this chapter will be discussing certain key/core issues, for a more in depth discussion a review of chapter four will suffice.

5.2) CONCLUSIONS

The conclusions of this study are formulated mainly according to the hypothesis, with further conclusions drawn from further questions asked and answered by this study.

The finding of this study is there are no significant differences found with the results obtained by using discriminant analysis and logistical regression as methods of predictive function. This conclusion rests on the findings as illustrated in tables seven and eight of chapter four.   Each method has a 100% accuracy in predicting or distinguishing between more and less talented players. Based on this it would then be up to the discrimination of the researcher(s) as to which method would be used.

This result then therefore nullifies question one and two of the further questions that follow, namely that if there are differences in the result obtained by the two methods, if these differences significant and secondly if the differences in the findings of the two methods, if any, mean the difference between success and failure or the overlooking of a talented player in favor of a less talented player?

Another question raised was if the two methods could be combined to form a more accurate method. Before this question is answered, a more in-depth review of the above findings is needed. Although there is no difference in the results obtained by the two methods, it stands to reason that there will be fundamental differences in the two methods themselves.

Firstly, when discriminant analysis is analyzed, it can be seen that this method uses more variables to discriminate the more talented from the less talented, a total of nine variables. The logistical regression method only used four variables. For a full review of the variables in question, refer to table four in chapter four.

What becomes apparent however, is that of the different variables in question, there were three that corresponded. When the four variables used in logistical regression were substituted into the discriminant analysis, it was found to predict less accurately than 100%. Refer to table nine in chapter four for a review of the findings of these substitutions.

What is clear in this case is that, instead of combining the two methods, a few options can be considered, determinant of certain factors. Firstly, an "either-or" approach can

be followed, as each method predicts equally accurately. When a clear indication of the more discriminating factors is needed, discriminant analysis should be used. When the relative impacts of the different factors are needed, then logistical regression is the most obvious choice of prediction.

Each of the above options obviously has it's own advantages and disadvantages. When merely wanting to determine or detect the presence of talent, discriminant analysis may be the better option to take. When doing a more in-depth study of talent and its effects or impacts, logistical regression may be the better option.

The last question was whether this study could be of benefit in the arena of talent identification in the previously disadvantaged areas. The answer to this is an emphatic yes! When it is known what is being looked for, and even when general talent identification is needed, then the above two methods can most definitely be of benefit to this need.

It is imperative that this issue be addressed as soon as possible, not only to predict further talent and to develop it, but also to still remain competitive with the current crop of participants while still addressing this issue in an effective and fair way. While it may be true that a drop in achievement or performance may be unavoidable, it is not the desirable and may even be detrimental to this country's sport, not necessarily in the long term, but certainly in the short to medium term. This does have negative effects, and should be avoided if at all possible.

When looking to whether the hypothesis of this study has been proven, it is fair to say that this study has proven that there are no differences in the findings of the methods in question, but that there are fundamental differences in the methods themselves, due to the statistical make-up of these methods. Therefore, the answer is no, the hypothesis has not been proven in this case.

When examined on the whole, this does not have negative consequences, but in fact can be a major advantage. Regardless of the method or model that is chosen, there is

still the ultimate "safety net" of knowing that eventually the same results regarding talent or lack of it will be attained. As mentioned before, each of these methods have their own advantages and disadvantages, and the testers, coaches and all interested parties need to evaluate these advantages and disadvantages before commencing with testing. The particular functions of either method can be of benefit to the above-mentioned interest groups.

What needs to be seriously considered is a combination of the two methods when testing for talent. In so doing, a thorough evaluation of the individuals and the factors influencing the decision as to whether they possess talent or not will be made, and the researchers as well as participants can be rest assured that all the factors have been exhaustively evaluated.

This study is also clear in its statements when it says that South Africa is still behind in the field of talent identification, but that we are catching up.   This is encouraging as it means that it is a situation that is improving. While the situation is improving it means that it is to the benefit of the whole country. In righting the wrongs of the past, and in so doing expanding our participant and talent base, the ultimate unity of the country will hopefully follow, as witnessed in the Rugby World Cup 1995 and the African Cup of Nations soccer in 1996 when the whole country forgot their differences and supported their team as one.

It is the desire of all South Africans, with our proud sporting history and known ability, to unite behind fully representative and competitive teams and to eventually relive past glories and ensure that they become our present and future glories as well.

5.3) RECOMMENDATIONS

Out of the above conclusions and the study as a whole, the following recommendations can be made:

5.3.1) Since there is, contrary to what was proposed by the hypothesis, no difference in the results obtained by the two methods, a midway needs to be found. Rather than adopting a preference for the one method at the expense of the other method, the following recommendation is made:

For a proper, thorough and in-depth talent identification process to be followed, it is recommended that both methods, i.e.: discriminant analysis and logistical regression be performed on the groups in question. The reason for this is that both methods have their relative advantages, disadvantages and focus areas inherent in their designs. It will be better that both be used so as to get the full spectrum of talent that is being identified.

5.3.2) To further expand on 5.3.1, the following needs to be noted. When the study is examined, it leads to the conclusion that there are differences in focus or emphasis of the methods in question. While discriminant analysis tends to differentiate the factors that discriminate the best, logistical regression tends to focus on the relative impact of the factors that are being measured. Both these methods have a very definite role to play with regards to the identification of talent in the previously disadvantaged communities, and talent in general. A possible recommendation is the following:

The above idea is best illustrated by using a hypothetical example: when a researcher is in the field, testing raw talent, discriminant analysis may be the better method to use. The reasoning behind this statement is contained in the above paragraph, namely that this method better differentiates the best discriminating factors. Once an idea has been formed as to those who possess the sought after talent, logistical regression can be applied to determine their

relative impacts as well as to confirm the findings of discriminant analysis.

Therefore, once the time has arrived to implement the application of the methods under discussion, this application can consist of two phases. The initial phase can be implementation of the method of discriminant analysis, while the final phase can be the implementation of the method of logistical regression.

5.3.3) While this study has been done on rugby players, it is feasible to suggest and therefore recommended that these methods be applied to other sports types. It is in the interests of this country that a vigorous talent identification process be launched, for now and the future. These methods can be of importance in aiding this process.

5.3.4) While it has been mentioned before, it is worthwhile to note again and is strongly recommended that responsibility be taken by the different role players in talent identification and prediction to nurture the talent that has been identified to the point of full maturation and potential. Utmost care needs to be taken in guiding the youngsters in their chosen direction, and never to lose sight of the fact that they are human beings and not merely assets available to them to make money with and to uphold national pride.

It is also therefore recommended (as has been mentioned in this study) that those who have been identified as not possessing talent in their chosen field be responsibly guided as quickly as possible in a direction in which they have more of an aptitude. Disappointment is inevitable, but can be valuable as a tool in mobilizing these individuals to pursue activities and sports types to which they are more suited.

What is implicit in this recommendation is that a database needs to be established in which tests and results for various sports types related or otherwise, are contained for reference and guidance purposes in the eventuality that an individual is found to not be suited for a particular sports type in which they have an interest or are pursuing.

5.3.5) It is also recommended that more studies be done on this topic, as it will be beneficial to this country and to the general pool of knowledge regarding this field. Sport is a highly competitive field, and to get the best results, the talent needed to be competitive in this sport needs to be uncovered at increasingly early ages. It is ultimately to the advantage of not only the country, but also the individual.