

**Examining the Categorical Structure of the Knowledge
of Expert Ice Hockey Coaches:
A Prototype Theory of Category Structure Applied to Qualitative
Analysis**

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One of the arguments presented in this thesis is that expertise does not exist in isolation. I would propose that masters' theses do not exist in isolation either. This thesis is largely the result of my interaction, over the past two years, with a remarkable group of people— both professors and students.

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Abstract

A qualitative analysis methodology refined to account for prototypical as well as classical category structure was used in the analysis of interview transcripts from four expert ice hockey coaches. Coaches were interviewed about their knowledge about the process of coaching elite level athletes. The interviews were transcribed and broken down into meaning units following the process outlined by Côté et. al., (1993). The meaning units were grouped together and similar meaning units were given the same content label. This process reflected the belief that knowledge was organized in the middle of a hierarchy from general to specific (Lakoff, 1987). Considering prototype effects in category structure, each of the 64 content labels was compared to each other, and a similarity rating on a seven point scale was assigned by the researcher. Category structures were generated from four non-hierarchical cluster analyses performed on the matrix of similarity judgments between the 64 resulting content labels. The relationships both within and between the categories were examined through an investigation of the distance to cluster center provided by the cluster analysis. These relationships provided insight into the structure, if not the content, of the categories that emerged from the data. The utility of this methodology as a preliminary step towards identifying the categorical structure of the data at hand, and the effect of both basic level categorization of knowledge and prototype effects in categorization were discussed.

Examining the Categorical Structure of the Knowledge of Expert Ice Hockey Coaches: A Prototype Theory of Category Structure Applied to Qualitative Analysis

The study of domain specific expert performance in a variety of applied fields of interest is an involved and challenging area of research in cognitive science today. Although many early studies of expertise were conducted in laboratory settings, the general scope of research on expertise has broadened to include different and more complex subject areas. Chase's chess board (Chase & Simon, 1973) and Chi's physics lab (Chi, Feltovich & Glaser, 1981) have been superceded by the operating room, the theater, and the concert hall, as the arena for the study of expertise. It is to this remarkably diverse group of subject domains that the study of expert coaches has been added (Côté, Trudel & Salmela, 1993; Côté, 1993; Salmela, 1994; Salmela, Draper & Desjardains Jr., 1994; Salmela, Russell, Côté, & Baria, 1991).

The study of expertise has followed two dominant methodological directions, quantitative and qualitative. The quantitative study of expertise examined expert performance through "producing and observing outstanding performance in the laboratory under relatively

standardized conditions" (Ericsson & Smith, 1991, p. 8). Expert-novice differences in the perception of chess boards or the solving of physics problems (Chase & Simon, 1973; Chi, Feltovich & Glaser, 1981), exemplify this approach.

A qualitative approach to the study of expertise takes the perspective that expertise does not exist in isolation. Experts are not examined in the laboratory, rather they are observed in a more naturalistic setting. This process can be as involved as participant observation or as remote as structured interview techniques and self-reports. It can be deductive, driven by theory, or data-driven, built from the ground up. The data-driven process of interpretational qualitative analysis is tied closely to the process of categorization. Categories of knowledge are inductively assembled by the researcher, from the data at hand.

Prototype Theory of Category Structure

The underlying structure and organization of these categories of knowledge has become a topic of debate in cognitive science (Sternberg & Smith, 1991). Research from the areas of cognitive anthropology (Berlin & Kay, 1969; Lounsbury, 1964), linguistics (Brown, 1958), and philosophy (Wittgenstein, 1953) has challenged the classical view of category structure. The idea that categories have absolute boundaries

and necessary and sufficient conditions for category membership (Sternberg & Smith, 1991) has been challenged, and a new theory -- prototype theory (Lakoff, 1987; Rosch, 1981; 1978; Sternberg & Smith, 1991) in which categories have prototypical members and fuzzy boundaries, has emerged.

The data-driven process of interpretational qualitative analysis, if refined methodologically to account for such prototype effects as central versus peripheral category membership, graded category boundaries, and "basic level" organization of knowledge (Lakoff, 1987; Rosch, 1982), could provide an effective method of assessing the underlying structure of the categories of knowledge of the phenomenon under study. To account for prototype effects, qualitative research techniques like the interview process would have to be combined with quantitative analysis techniques like cluster analysis or multi-dimensional scaling to interpret the large matrices of similarity ratings produced.

Purpose of the Study

The present exploratory study investigated the effects of accounting for prototype theory with multiple similarity ratings between all possible pairs of "basic level" categories, generated from a series of

interviews with expert ice hockey coaches, as the basis for investigating the structural organization of knowledge.

CHAPTER 2 LITERATURE REVIEW

Strategies for Qualitative Data Analysis

In an extensive review of qualitative analysis methodologies, Tesch (1990) outlined two main approaches, interpretational and structural qualitative analysis. For the structural analyst, the "function of the researcher is to retrieve and make sense of information throughout the data by working with a set of relationships whose nature is well established" (Côté, Salmela, Baria, & Russell, 1993, p. 5). The process of structural qualitative analysis predetermines a structure, and fits the data to that structure.

Interpretational qualitative analysis is becoming a prevalent methodology in sport psychology. As the result of an impetus from Martens (1981), idiographic approaches have been used by Cohn (1990), Côté, Trudel and Salmela (1993), Orlick and Partington, (1988), Partington and Orlick (1991), Russell (1990), Salmela (1994), Salmela, Russell, Côté, and Baria (1991), and Scanlan, Stein, and Ravizza (1989; 1991). The task of the interpretational qualitative analyst, according to Tesch (1990), is to overlay "a structure of her or his own, making the phenomenon under study easier to grasp" (p. 103). Categories emerged

from the data, and were not predetermined by the researcher.

"Interpretational researchers deal with fuzzily bounded categories of text, the goal being to develop the best classification system that fits the data with minimal overlapping between categories" (Côté et al., 1993, p. 5).

Côté et al. (1993) examined of the process of interpretive qualitative analysis in sport psychology and found that "little reference is made to procedures and operations used between the first stage, where the researcher has to deal with numerous pages of unstructured data, and the final stage which represents the organizing system of categories or elements" (p. 8). They proposed common guidelines for the mechanics of interpretive qualitative analysis (Côté & Salmela, 1994).

The process of interpretational qualitative analysis, according to Côté et al., (1993) involved two separate phases: Creating tags, and creating categories. The aim of the first phase, creating tags, was to "produce a set of concepts which adequately represent the information included in the interview transcripts" (p. 9). Meaning units, or segments of the text that contained one specific idea and could stand alone, were identified, and the researcher looked for in vivo tags to represent the unit. These tags were initially considered provisional and could change and evolve as the analysis progressed.

The second phase, according to Côté et al. (1993), creating categories, examined all the meaning units derived in the first phase and, on the basis of similarity, grouped like tags together to form categories. Three critical characteristics of the categorization process were listed: Coding experience, similarity, and inductive inference. Coding experience referred to the amount of practice the coder had with the method of qualitative analysis in question. Similarity reflected the degree to which the data in each category were similar, and the degree to which the categories themselves were different.

Inductive inference was the name given to the process used in the creation of the categories. "In this process, there are no predetermined categories or patterns before data collection: The important dimensions of the interviews emerge from the analysis. In other words, tags and categories are generated from the data" (Côté et al., 1993, p. 10). The nature of the structure of these categories and the underlying principles of categorization upon which the structure of the categories is based, has seldom been addressed in the qualitative analysis literature. The implications of the process of categorization itself, and the epistemological beliefs underlying the structure of categories, will now be examined.

Prototype Theory of Category Structure

The process of creating categories in interpretive qualitative analysis can be as simple as grouping like meaning units together, and then labeling the resulting cluster. As elementary as the above statement may appear, when examined in detail, many resulting questions arise. How do meaning units become grouped together? Are these groups mutually exclusive? Is their extensive overlap? Can a meaning unit be in two groups at the same time? How are these groups of meaning units and categories organized? What these questions have in common is their attempt to examine the underlying process of categorization.

According to the classical theory of categorization, as described by Lakoff (1987) "Things are in the same category if and only if they have certain properties in common. Those properties are necessary and sufficient conditions for defining the category" (p. xiv). Lakoff argued that the near-universal acceptance of the classical theory of categorization was never "the result of empirical study. It was not even a subject of major debate. It was a philosophical position arrived at on the basis of a priori speculation" (p. 6). More importantly:

Over the centuries it simply became part of the background assumptions taken for granted in most scholarly disciplines. In fact, until very recently, the classical theory of categories was not thought of as a theory. It was thought in most disciplines not as an empirical hypothesis, but as an unquestionable definitional truth. (p. 6)

The idea that things are categorized together based on what they have in common is not necessarily inappropriate, but, according to Lakoff (1987), the process involved is far more complex. Lakoff pointed to a new theory of categorization, prototype theory, in an attempt to explain the process. Rosch (1973), who is credited by Lakoff (1987) as being the first person to take issue with the classical theory of categorization, focused upon two implications of the classical theory:

First, if categories are defined only by properties that all members share, then no members should be better examples of the category than any other members. Second, if categories are defined only by properties inherent in the members, then categories should be independent of the peculiarities of any beings doing the categorizing: that is, they should not involve such matters as human neurophysiology, human body

movement, and specific human capacities to perceive, to form mental images, to learn and remember, to organize the things learned, and to communicate effectively. (Lakoff, 1987. p. 7)

What Rosch observed was that categories have "best examples (called 'prototypes') and that all the specifically human capacities just mentioned do play a role in categorization" (Lakoff, 1987. p. 7). Prototype theory recognizes that some categories are graded, that is, "They have inherent degrees of membership, fuzzy boundaries, and central members whose degree of membership (on a scale from zero to one) is one" (Lakoff, 1987. p. 56). For example, in the following meaning units from the present study of expert ice hockey coaches, the third one would be considered more central to the category "future training of coaches" than the fifth one.

Meaning Unit 1:

People should be able to study how to become a coach. If the required body of knowledge is present with the right personal make-up and qualities that go into making a good coach, then you have the chance to be great.

Meaning Unit 2:

This is lacking in the preparation of coaches at the elite level. We do not simulate game conditions, dealing with the media, or getting ready to play the biggest game of your life, creating an environment where the expectation is that you perform at an extremely high level on a regular basis.

Meaning Unit 3:

I put together a proposal. We would isolate all the sport science areas, get mentor coaches as master coaches, and have the young coaches study the application of sport science areas. The information wasn't extrapolated out of a sport psychology class that was generic, but it was sport psychology applied to coaching, biomechanics for coaching, and exercise physiology for coaching.

Meaning Unit 4:

I have been to Dorothy Strachan's leadership modules and they are excellent. I have gotten some leadership ideas out of that, especially in conflict resolution, how to deal with people, deal with situations. I think it can be taught in a clinic or seminar. That combined with working with somebody, it would be excellent.

Meaning Unit 5:

There are no big secrets. Some people do this better than other people, because that is the way that they are. I don't have any problems showing anybody what I do, because I think that I teach it better than anybody around. So I don't have any trouble with that, and I will show you what the press is with my offence, it doesn't matter to me.

Although all meaning units seem to belong in the category "future training of coaches" the third one is most central to the category. What is clear is that all of the meaning units could be considered as members of categories other than "future training of coaches"— meaning unit 2 could belong to the category "crafting the training environment"; meaning unit 4 could belong to the category "other sources of knowledge. The category "future training of coaches" encompasses many other categories. There

is no clear boundary where "future training of coaches" stops, and "crafting the training environment" or "other sources of knowledge" begin.

"Basic Level" Organization of Knowledge

With regard to the hierarchical organization of classical categories, Lakoff (1987) stated;

The structural organization of categories, typically thought of in terms of simple taxonomic hierarchies is also re-evaluated, in terms of prototype effects. Categories 'in the middle' of a hierarchy are the most *basic*, relative to a variety of psychological criteria: Gestalt perception, the ability to form a mental image, motor interactions, and ease of learning, remembering, and use. Most knowledge is organized at this level. (p. 56)

This basic level "depends upon perceived part-whole structure and corresponding knowledge about how the parts function relative to the whole" (Lakoff, 1987. p. 56). Categories, at the basic level, are organized by the relationship of the part to the whole. To illustrate this "psychologically most basic level of categorization" Lakoff (1987) used the following taxonomic hierarchy for animal categorization: At the highest, or superordinate level the category "animal" would be found. In the middle

of the hierarchy, at the "basic level" the category "dog" would be found. At the subordinate level the specific breed "Retriever" would be found. In the context of the present study, the basic level category of "goal-setting" would fall under the superordinate category of "coaching" with the category "setting long-term vs. short term-goals being subordinate to "goal-setting."

The meaning units generated by the process of interpretational qualitative analysis fall within the level of the subordinate category, and thus, according to Lakoff (1987) are not the level at which the categories are organized. Categories are organized in the middle, at the basic level. This does not direct the researcher to ignore "setting long-term vs. short-term goals" rather it directs the researcher to interpret the structure of the categories at the next level up, "goal-setting." Any structure of knowledge derived from a process of categorization should be arranged at the level that is psychologically most basic, otherwise, the researcher is, through the process of categorization itself, applying a template through which the data is perceived.

Prototype theory of categorization (Lakoff, 1987; Rosch, 1978; 1981) does not conflict with the methodology of interpretative qualitative analysis, rather, it complements it. In outlining the properties relevant to

the description of categories, Lakoff stated that the relationship was *interactional*. "Prototypical members of categories are sometimes described in terms of *clusters* of such interactional properties. These clusters act as *gestalts*: the cluster as a whole is psychologically simpler than its parts" (Lakoff, 1987, p. 56). This would seem to reflect the "holographic" or interactional nature of the naturalistic paradigm (Lincoln & Guba, 1991) from which the process of interpretational qualitative analysis has developed.

The purpose of interpretative qualitative analysis is the creation of "the best classification system that fits the data with minimal overlapping between categories" (Côté et al., 1993, p. 5). The mechanics of the process of building a category structure in interpretative qualitative analysis considers all categories to be classical: Discrete categorization based on similarity between meaning units, with necessary and sufficient criteria for category inclusion. A prototypical category structure, on the other hand, would allow for both classical and prototypical categories. If only classical categories exist, they will be observed as such. If prototypical categories are also present, they will be interpreted as such, rather than simply put into discrete classical category "black boxes".

Lakoff (1987) stated that the classical theory of categorization is not necessarily inappropriate. The same can be said of the process of interpretive qualitative analysis. However, if the prototype effects observed by Rosch (1978, 1981) and Lakoff (1987) were to be accounted for, in the interpretation of category structure in interpretive qualitative analysis, some changes to the process, and assumptions of the analysis have to take place.

Quantitative Analysis of Qualitative Data

The problem remains, how do we account for prototype effects in the method of interpretational qualitative analysis? One possible answer to this question is to look to graded as opposed to discrete similarity ratings of the meaning units. Instead of simply comparing meaning units and making a yes / no decision concerning category membership, each meaning unit could be compared to each other meaning unit, generating a pattern of similarity. Categories would be composed of a range of meaning units that are all highly similar, with some units being more central than other. Meaning units would not be restricted to only one category, they could be part of, to a greater or lesser extent, several other categories. The relationship between and within categories might become more meaningful. If some of the meaning units comprising the

category "future training of coaches" were also rated as highly similar to the meaning units comprising the category "learning from mentors" the researcher could then examine the relationship between the two categories. Such multiple patterns of similarity between categories could not emerge from a predetermined classical category structure because a meaning unit would either be considered inside a category or outside the category.

The proposed method would result in the generation of a large matrix of similarity measures. Because the potential size of this matrix is large, appropriate statistical analysis must be used to aid in its interpretation. It is important at this point to distinguish between qualitative *research* and qualitative *analysis*. Qualitative research is conducted from a certain methodological and epistemological perspective, that of naturalistic inquiry. Qualitative analysis is the process through which the data obtained through qualitative research is studied. It is in the process of qualitative analysis, not that of qualitative research, that the statistical analysis could only be a useful tool.

To make the interpretation of the matrix generated by the above mentioned process, a number of statistical methods might be considered

useful. Cluster analysis, which parallels closely the assumptions of prototype theory, will be utilized

Cluster Analysis of Qualitative Data

According to Hair, Anderson, Tatham & Black (1992), cluster analysis is "a technique for grouping individuals or objects into clusters so that objects in the same cluster are more like each other than they are like objects in other clusters" (p. 265). This definition reflects the task of the prototypical qualitative researcher, who must put similar meaning units together to form categories. When the type of similarity measure is a distance function, it is assumed that the measure of similarity represents a real distance between the two objects. The usefulness of assuming the similarity measures are distance measures is in graphically representing the resulting cluster structure. Not only will clusters be generated, but the actual distance between them will reflect the degree of difference between them. If the difference between the "future training of coaches" and the "learning from mentors" clusters, when represented graphically, is smaller than the difference between the "future training of coaches" and the "other sources of knowledge" clusters, the researcher could conclude that the "learning from mentors" cluster is more related to the "future

training of coaches" cluster than is the "other sources of knowledge" cluster.

Hair et. al., (1992) suggested a combination of both hierarchical, and non-hierarchical clustering methods be used to gain the benefits of each. A hierarchical cluster analysis could identify the number of clusters, establish the cluster centers, and identify any obvious outliers. The meaning units could then be clustered with a non-hierarchical method, using the cluster centers generated through the hierarchical cluster analysis as the initial seed points. In this way, the advantages of the hierarchical methods are complemented by the ability of the non-hierarchical methods to "fine-tune" the results by allowing the switching of cluster membership (Hair et. al., 1992, p. 279). This combination of clustering methods allows the researcher to cluster the meaning units without violating the data-driven nature of the qualitative research approach. Once the data has been successfully clustered the next step is the interpretation. Items in the resulting clusters are examined, and a name is given to the cluster, or category. This process is no different from the process of creating categories in classical interpretative qualitative analysis.

One of the major themes that Hair et. al., (1992) presented, concerning cluster analysis, was that no single clustering method should be used in isolation. The same advice might prove useful in the process of reassembling the qualitative data. Other methods for organizing this type of data, like multi-dimensional scaling, do exist and should be considered in this type of analysis.

CHAPTER 3 METHODS

Subjects

The subjects for the study were four expert ice hockey coaches, two of whom are currently coaching in the National Hockey League, two are coaching at the University / Community College level. The coaches were selected by the Canadian Amateur Hockey Association as having fulfilled, in their judgment, the requirements of being an "expert coach." The coaches selected had to have been former National Junior or Olympic ice hockey head coaches – three of the four coaches had won gold medals in the World Junior Ice Hockey Championships. Each of the four coaches also met Ericsson, Krampe, & Tesch-Römer's (1993) requirement of experience, or having at least 10 years of deliberate practice, in some cases, coaches had more than 25 years of deliberate practice.

Procedure

Interviews with the coaches, lasting approximately one and a half hours, were conducted on separate occasions. Having conducted over 20 interviews with expert coaches the researcher was well qualified in the technique of interviewing expert coaches. The interviews were recorded on audio tape and transcribed verbatim by a graduate student not

associated with the analysis phase of the project. Once transcribed, the interviews were then broken down into meaning units following the procedures for inductive qualitative analysis outlined by Côté et. al, (1993). Meaning units of similar names were grouped together and assigned a content label, sorted based on that content label, and reviewed by the researcher, to ensure that the label was reflective of the content. Judgments on the following seven point Likert scale (see Figure 1), ranging from conceptually unrelated to conceptually identical were then made between all possible pairs of content labels;

Figure 1: Content Label Comparison Scale

1	2	3	4	5	6	7
Conceptually Identical	Highly Conceptually Related	Moderately Conceptually Related	Conceptually Related	Remotely Conceptually Related	Very Remotely Conceptually Related	Conceptually Unrelated

The resulting lower rectangular similarity matrix was then exported as a D-Base file and imported to SPSS PC for Windows (v. 6.0). A hierarchical cluster analysis was then conducted using the CLUSTER command of SPSS PC. The centroid method was used, with the distance measure being the squared Euclidean distance default. From the analysis of the dendrogram, or tree diagram, produced by the hierarchical cluster analysis, the number of meaningful cluster solutions was decided

upon. Using the QUICK CLUSTER command a non-hierarchical cluster analysis was conducted for each of the cluster solutions. Clusters were identified, their composite content labels were reviewed, and a cluster label was assigned. The relationship between the clusters was assessed through an examination of the distance to cluster center of the various content labels, across all clusters in the solution.

CHAPTER 4 RESULTS

A total of 443 meaning units was identified from the transcribed interviews. Meaning units that dealt specifically with the question “How did you become an expert coach?” were excluded from the analysis, as the researcher was only interested in the experts’ knowledge structure, and not the path taken to develop it. Once the development-related meaning units were removed, the remaining 211 meaning units were assigned a preliminary content label that reflected the “basic level” of categorization, sorted using that content label, and reviewed to ensure that the label was reflective of the content. Meaning units with similar content were given the same content label. This process left a total of 64 unique content labels.

The matrix of over 2000 similarity judgments among the 64 unique content labels was clustered, using the hierarchical cluster analysis feature of SPSS PC+ (v. 5.). The dendrogram produced by the first hierarchical cluster analysis (see Figure 2) was used to determine what cluster solutions might be meaningful to analyze. From a visual examination of the dendrogram, and a cursory examination of the meaning

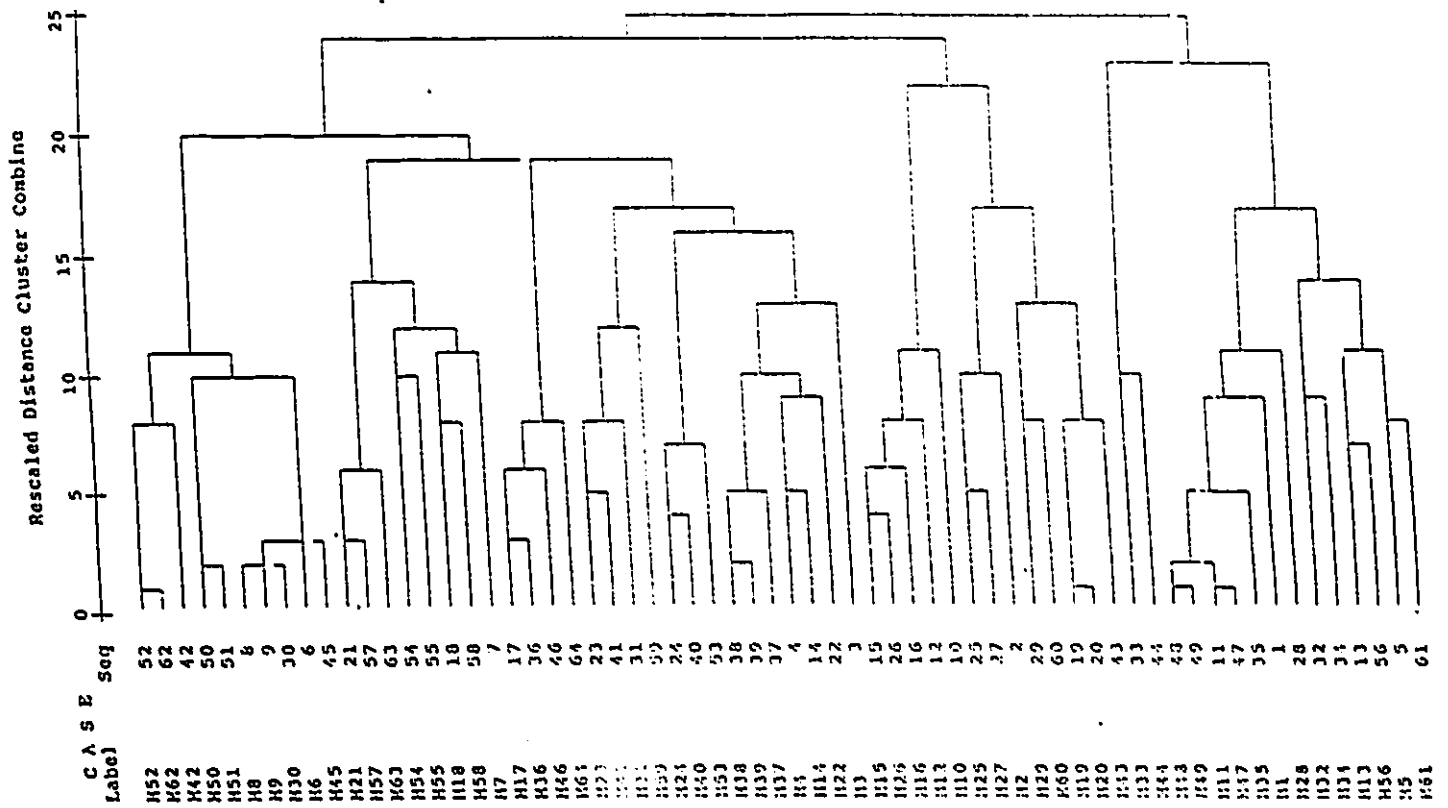


Figure 2: Dendrogram Produced by the Hierarchical Cluster Analysis

units clustered together by the initial hierarchical cluster analysis, a two cluster solution, a three cluster solution, a six cluster solution and a 12 cluster solution were all selected as being interpretable. Although it is possible to interpret as many cluster solutions as there are content labels, doing so would not always be meaningful. The two and three cluster solutions were selected because both solutions reflect major divisions in the data – and as such, should provide insight on the major content areas of the experts' knowledge. The six and 12 cluster solutions were selected to present a picture of the data at different levels of focus.

The selection of different levels of cluster solutions reflected the desire of the researcher to understand how, at different levels of the cluster structure hierarchy, the individual content labels related to one another, and to the other clusters. The decision to proceed with the four chosen cluster solutions was not arbitrary. It was made upon careful inspection of the dendrogram, and, much like the process of category generation in qualitative analysis, was open to re-consideration as the analysis progressed. Results from the cluster analysis will be presented in ascending order of the number of clusters in the solution.

Interpreting the Two Cluster Solution

Tables 1 and 2 present the content labels that made up clusters one and two of the two cluster solution, along with their distance to the center of both cluster. Content labels that were greater than three standard deviations from the prototypical, or most central content label, were not included. This criterion for category inclusion allowed for variance in the density of different categories and as such did not impose the same cut-off point for inclusion each category.

The prototypical content label for the categories was defined as the content label having the smallest distance to the center of the cluster. This label was the most central to the category. The remaining content labels were arranged in ascending order of distance to the center of the cluster. Category membership was not defined exclusively by the distance from the content label to the center of the cluster, rather, as with the process of interpretational qualitative analysis, it was assessed through a combination of both the distance to center and through and examination of the content labels that were grouped together by the clustering algorithm. The distance to the center of the cluster was most useful as a means to assess the extent of the overlap between the content labels of different clusters.

Table 1

Distance Between the Content Labels of Cluster One of the Two Cluster
Solution , and the Center of Clusters One and Two

Content labels of Cluster One	Distance to Center	
	Cluster 1	Cluster 2
getting the most from your players in practice	4.55	6.74
building a training plan	4.77	6.93
use of a training plan	4.86	6.83
practicing for game situations	5.00	7.00
creating a flow to practice	5.05	7.00
practice plans	5.05	6.98
practicing at game speed	5.09	7.00
cycle of playing - practicing in university	5.27	6.95
base practice on previous game	5.36	6.60
getting the best out of everybody	5.41	6.90
being the hardest working team	5.59	6.93
knowing when to work and when not to work in practice	5.59	6.98
focusing on your own team, not the opposition	5.64	6.88
goal-setting	5.73	6.69
effects of bonding on team building	5.77	6.79
creating the right coach-player environment	5.82	6.45
effects of a brawl on team unity	5.86	6.76
keeping past training plans	5.95	6.90
the vision	5.95	6.71
gaining the confidence of the players	6.05	6.76
painting the big picture	6.09	6.67
scheduling	6.18	6.98
keeping a log book	6.18	6.83

Table 1 - Continued

Content labels of Cluster One	Distance to Center	
	Cluster 1	Cluster 2
player evaluation	6.23	6.36
dealing with players fairly	6.36	6.52
use of video in game preparation	6.41	6.17
role of the coach in team building	6.41	6.64
preparation for competition through video	6.45	6.14
communicating with players	6.50	6.12
reading your team	6.64	6.43
innovations	6.73	6.79

Category Composition

The nature of this "primary division," as seen in examining the cluster membership from Tables 1 and 2, seems to be between game situations, and the preparation for game situations. Central to the first cluster (Table 1) were content labels that dealt with the building, following and maintaining a training plan. The prototypical content label for this category was "getting the most from your players in practice." This category also combined elements of goal-setting, team building, and environmental constraints, into the building of a training plan. The

Table 2

Distance Between the Content Labels of Cluster Two of the Two Cluster Solution, and the Center of Clusters One and Two

Content labels of Cluster Two	Distance to Center	
	Cluster 1	Cluster 2
between periods improvement points	7.00	5.76
making adjustments between periods	7.00	5.81
coaches' pre-game preparation	6.91	5.81
dealing with players between periods	6.95	5.81
importance of coaches' preparation	7.00	5.90
coaches' pre-game rituals	7.00	5.90
players pre-game preparation	6.95	5.95
non-verbal communication during competition	7.00	5.98
making adjustments during competition	7.00	5.98
opportunities to teach in game situations	7.00	5.98
feedback from assistant coaches between periods	7.00	6.02
pre-game talk	7.00	6.02
losing: post-game evaluation	7.00	6.05
maintaining emotional control during competition	7.00	6.07
evaluating coaches' performance during competition	7.00	6.07
coaches' personality	6.82	6.07
dealing with winning and losing	6.86	6.07
coaches' mental preparation	7.00	6.10
post-game summary	7.00	6.10
focusing on the game during competition	7.00	6.12
communicating with players	6.50	6.12
preparation for competition through video	6.45	6.14
use of video in game preparation	6.41	6.17
pre-game warm-up	7.00	6.19

Table 2 - Continued

Content labels of Cluster Two	Distance to Center	
	Cluster 1	Cluster 2
over use of video in team preparation	6.95	6.29
benching players	6.86	6.29
winning: post-game evaluation	6.91	6.29
player evaluation	6.23	6.36
role of assistant coach	7.00	6.40
importance of teaching cues, orchestration	7.00	6.40
reading your team	6.64	6.43
self evaluation of coaches' performance	7.00	6.43
creating the right coach-player environment	5.82	6.45
wallowing	6.86	6.45
finding coachable moments	6.95	6.50
dealing with players fairly	6.36	6.52
teaching points	6.86	6.57
base practice on previous game	5.36	6.60
dealing with players perceptions	6.77	6.62
role of the coach in team building	6.41	6.64
different coaching styles	7.00	6.67
painting the big picture	6.09	6.67
superstitions	7.00	6.69
goal-setting	5.73	6.69
the vision	5.95	6.71
getting the most from your players in practice	4.55	6.74
effects of a brawl on team unity	5.86	6.76
gaining the confidence of the players	6.05	6.76
effects of bonding on team building	5.77	6.79
innovations	6.73	6.79
use of a training plan	4.86	6.83
keeping a log book	6.18	6.83

content labels in this category progressed from specific ideas and techniques for the training plan: "practice for game situations," "creating a flow to practice," to broader, more conceptual ideas that relate to the selling of that plan: "the vision," "goal-setting," "being the hardest working team."

The second cluster included content labels that dealt with aspects of competition. The prototypical content label of this cluster was "between periods improvement points". This category also combined elements of pre-game preparation for coach and athlete, operating in competition (coach), post-game evaluation, as well as some teaching process components.

Category Structure

From investigating the distance to cluster center, presented in Tables 1 and 3 could be seen that the categories did overlap, that is, they were not mutually exclusive and utilized some of the same content labels, to different degrees, in their composition. Content label 1, "base practice on previous game" was an example of this overlap, being central to cluster one, but still related to cluster two. Content labels, "creating the right coach-player environment," "player evaluation," "dealing with players fairly," "role of the coach in team building," "use of video in

coaches' game preparation," "player preparation for competition through video," "communicating with players," and "reading your team" were all non-central members of cluster one - they were located further towards the outside of the cluster - but were related to cluster two.

Table 2 presents an interesting picture of cluster two. The first 18 content labels fell exclusively within cluster two. The remaining 35 were evenly dispersed between the two clusters. It appeared that the further away from the center of cluster two a content label was, the more likely that content label was to be closer to the center of cluster one than of cluster two. Content labels from cluster two that were related to cluster one included "player evaluation," "dealing with players fairly," "creating the right coach-player environment," "base practice on previous game," "role of the coach in team building," "painting the big picture," "goal-setting," "the vision," "getting the most from your players in practice," "effects of a brawl on team unity," "gaining the confidence of the players," "effects of bonding on team unity," "keeping a log book," "61 use of a training plan," and "focusing on your own team, not the opposition."

The overlap between the competition and training clusters seemed to have been centered around the concepts of creating a good coach-

player relationship, the combined process of team building, through goal-setting, and player evaluation, and the transition from training to practice for specific games. Although this method only provides structural insights, the researcher would have to be aware of the possible overlap between the two areas, and take this into consideration when determining the content of the clusters.

Interpreting the Three Cluster Solution

Category Composition

Cluster one of the three cluster solution, presented in Table 3, had content label 52 “preparation for competition through video” as its prototypical content label. This cluster dealt primarily with the immediate preparation, of both coach and player, for the upcoming competition.

This category centered around pre-competition preparation. Moving towards the periphery of this cluster, content labels that dealt with practice, practice planing, and practice strategies were found. Further outside were scheduling constraints and the use of a training plan.

The second cluster, presented in Table 4, focused around the long-term cycle of preparation - training. The prototypical content label for this cluster was “building a training plan.” Closely related to this training plan was the concept of goal-setting, upon which the entire plan was based. Setting the goals and using the training plan were next closest to the center of this cluster. Progressing towards the outside of this cluster, selling the vision, team building, and team work ethic, along with player evaluation were found.

Table 3

Distance Between the Content Labels of Cluster One of the Three Cluster Solution , and the Center of Clusters One, Two and Three

Content labels of Cluster One	Distance to Center		
	Cluster 1	Cluster 2	Cluster 3
preparation for competition through video	4.35	6.85	7.00
use of video in game preparation	4.47	6.75	7.00
base practice on previous game	4.65	6.55	6.85
coaches' pre-game preparation	4.94	6.90	6.44
players pre-game preparation	5.00	6.95	6.63
getting the most from your players in practice	5.00	5.65	6.85
practicing for game situations	5.12	6.40	7.00
practicing at game speed	5.12	6.50	7.00
importance of coaches' preparation	5.18	6.95	6.48
coaches' pre-game rituals	5.18	7.00	6.44
creating a flow to practice	5.24	6.35	7.00
practice plans	5.24	6.30	7.00
knowing when to work and when not to work in practice	5.47	6.70	7.00
coaches' mental preparation	5.47	7.00	6.56
over use of video in team preparation	5.53	6.85	6.89
pre-game talk	5.65	7.00	6.33
pre-game warm-up	5.76	7.00	6.52
cycle of playing - practicing in university	5.88	5.95	7.00
use of a training plan	5.94	5.25	6.96
post-game summary	6.35	6.85	6.11
focusing on your own team, not the opposition	6.35	5.80	7.00
keeping past training plans	6.41	6.15	7.00
building a training plan	6.41	4.90	7.00
getting the best out of everybody	6.41	5.75	6.85

Table 3: Continued

Content labels of Cluster One	Distance to Center		
	Cluster 1	Cluster 2	Cluster 3
dealing with winning and losing	6.47	6.90	5.85
non-verbal communication during competition	6.53	7.00	5.70
maintaining emotional control during competition	6.53	7.00	5.85
being the hardest working team	6.53	5.85	6.89

The third cluster of the three cluster solution was identical to cluster two of the two cluster solution. Figure 2, the dendrogram produced in the hierarchical cluster analysis showed that cluster one, "Preparation" of the two cluster solution was broken down into two parts, clusters one, "Immediate Preparation for Competition" and two, "Building a Training Plan" in the three cluster solution, while cluster two, "Competition" of the two cluster solution remained relatively unchanged for the three cluster solution.

Category Structure

Tables 3, 4 and 5 shed some interesting light on the interrelationship between short term and long term preparation, and competition. The overlap between "immediate preparation for

Table 4

Distance Between the Content Labels of Cluster Two of the Three Cluster
Solution , and the Center of Clusters One, Two and Three

Content labels of Cluster Two	Distance to Center		
	Cluster 1	Cluster 2	Cluster 3
building a training plan	6.41	4.90	7.00
goal-setting	7.00	5.05	6.93
use of a training plan	5.94	5.25	6.96
the vision	6.94	5.40	6.93
effects of a brawl on team unity	6.94	5.45	6.89
effects of bonding on team building	6.88	5.45	6.89
painting the big picture	6.94	5.65	6.78
getting the most from your players in practice	5.00	5.65	6.85
creating the right coach-player environment	6.76	5.70	6.30
player evaluation	6.71	5.70	6.52
keeping a log book	7.00	5.75	7.00
getting the best out of everybody	6.41	5.75	6.85
focusing on your own team, not the opposition	6.35	5.80	7.00
being the hardest working team	6.53	5.85	6.89
cycle of playing - practicing in university	5.88	5.95	7.00
role of the coach in team building	7.00	6.05	6.67
gaining the confidence of the players	6.82	6.10	6.63
scheduling	6.94	6.10	7.00
keeping past training plans	6.41	6.15	7.00

competition" and "building a training plan," as seen in Tables 3 and 4

seemed to be the group of content labels dealing with both the training

Table 5

Distance Between the Content Labels of Cluster Three of the Three Cluster Solution , and the Center of Clusters One, Two and Three

Content labels of Cluster Three	Distance to Center		
	Cluster 1	Cluster 2	Cluster 3
between periods improvement points	6.71	7.00	5.26
making adjustments between periods	6.65	7.00	5.37
dealing with players between periods	6.65	6.95	5.37
opportunities to teach in game situations	6.76	7.00	5.56
making adjustments during competition	6.65	7.00	5.63
non-verbal communication during competition	6.53	7.00	5.70
communicating with players	6.82	6.45	5.74
feedback from assistant coaches between periods	6.59	7.00	5.74
losing: post-game evaluation	6.65	6.85	5.85
dealing with winning and losing	6.47	6.90	5.85
maintaining emotional control during competition	6.53	7.00	5.85
focusing on the game during competition	6.59	7.00	5.89
coaches' personality	6.65	6.60	5.93
evaluating coaches' performance during competition	6.71	6.65	6.00
benching players	7.00	6.65	6.04
post-game summary	6.35	6.85	6.11
winning: post-game evaluation	6.82	6.75	6.11
importance of teaching cues, orchestration	7.00	6.90	6.15
reading your team	7.00	6.50	6.19
dealing with players fairly	6.94	6.35	6.26
role of assistant coach	7.00	6.70	6.30
creating the right coach-player environment	6.76	5.70	6.30

Table 5: Continued

Content labels	Distance to Center		
	Cluster 1	Cluster 2	Cluster 3
finding coachable moments	6.88	6.95	6.30
self evaluation of coaches' performance	7.00	6.75	6.30
pre-game talk	5.65	7.00	6.33
teaching points	6.76	7.00	6.37

plan, and the practice plan, as well as work ethic and scheduling constraints. Content labels that exhibited overlap between the two categories were "practicing at game speed," "building a training plan," "use of a training plan," "getting the most from your players in practice," "getting the best out of everybody," "focusing on your own team, not the opposition," "being the hardest working team," "cycle of playing - practicing in university," "keeping past training plans," "practice plans," "practicing for game situations," "base practice on previous games," and "creating a flow to practice." The extensive nature of this overlap - the number of content labels shared, and their distance to the center of both clusters, was an indication of the strength of the relationship between the two categories. Intuitively, "immediate preparation for competition" and "building a training plan" both deal with the same thing, preparation.

Cluster one deals with short-term preparation, whereas cluster two deals with more long-term preparation.

The overlap of content labels in clusters one and three seemed to center on the content aspects of pre- and post- game summary, and game preparation, dealing with winning and losing, and emotional control during the game. The picture presented in Table 3 of the distance from the center of cluster three of the content labels of cluster one is a much different picture than that presented in Table 5, the distance from the center of cluster one of the content labels of cluster three. Table 3 indicated that only a set number of the content labels from cluster one were related to the center of cluster three. Table 5, on the other hand, indicated that only six of the 26 content labels of cluster three were not related to the center of cluster one. This pattern indicated that the content labels that made up cluster three were more closely associated with cluster one, that is, the composition of cluster three "During Competition" was closely linked to the cluster of "Immediate Preparation for Competition." Conversely, "Immediate Preparation for competition" shared more content labels with "Building a Training Plan" than it did with "During Competition."

An inspection of Tables 4 and 5 revealed that the overlap between "Building a Training Plan" and "During Competition" was dealing with, communicating to, and creating the right environment for, the players. Other areas of overlap included player and coach.

The overlap between "Building a Training Plan" and "During Competition" was not as great as the overlap between "Immediate Preparation for Competition" and "Building a Training Plan," i.e., more content labels exhibited a greater degree of overlap in the latter case. The overlap between the content labels of "Competition" and the center of "Building a Training Plan" was greater than the overlap between the content labels of "Building a Training Plan" and the center of "Competition."

The picture painted by the three cluster solution linked short-term "Immediate Preparation for Competition" and long-term "Building a Training Plan" preparation together, with "During Competition" drawing on elements from both clusters. Overlap between the three clusters was less frequent than in the two cluster solution, i.e., fewer content labels exhibited overlap. However, when that overlap occurred, the degree of that overlap was greater, i.e., the distance to the cluster center was smaller.

Interpreting the Six Cluster Solution

As demonstrated in the interpretation of the two and three cluster solutions, the larger categories seemed to have within them, logical groupings of smaller categories. In the six and 12 cluster solutions, these smaller categories were made more apparent. The category prototypes for the six cluster solution were as follows; Cluster one, "player pre-game preparation", Cluster two, "goal-setting", Cluster three "creating the right coach-player environment" and "dealing with players fairly", Cluster four, "dealing with winning and losing", Cluster five, "creating a flow to practice", and "practice plans", and Cluster six, "making adjustments in between periods."

Category Composition

Cluster one, labeled "immediate preparation for competition" remained relatively unchanged, except for the ordering of the content labels, from cluster one of the three cluster solution. Cluster one, presented in Table 6, dealt with all aspects of the immediate pre-game preparation of both the coach and the players.

Cluster two of the six cluster solution, presented In Table 7 refined out the "building the training plan" component of cluster two of the three cluster solution, leaving the process of goal-setting, team building, and

Table 6

Distance Between the Content Labels of Cluster One and the Center of Clusters One to Six

Content Labels of Cluster One	Distance to Center					
	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
players pre-game preparation	3.00	7.00	7.00	6.20	6.92	6.56
coaches' pre-game preparation	3.13	6.95	7.00	5.90	6.83	6.22
preparation for competition through video	3.13	6.89	7.00	6.50	6.17	7.00
use of video in game preparation	3.25	6.79	7.00	6.50	6.25	7.00
coaches' pre-game rituals	3.38	6.89	7.00	6.20	7.00	6.22
importance of coaches' preparation	3.38	6.79	7.00	6.30	7.00	6.33
coaches' mental preparation	4.00	6.95	7.00	6.30	7.00	6.33
over use of video in team preparation	4.25	6.84	7.00	6.60	6.92	6.89
pre-game talk	5.38	7.00	6.50	5.10	7.00	6.33
pre-game warm-up	5.63	7.00	7.00	5.30	7.00	6.33
base practice on previous game	5.75	6.84	6.67	6.60	4.17	7.00
getting the most from your players in practice	6.13	6.42	5.50	7.00	4.08	6.67
non-verbal communication during competition	6.25	6.63	6.50	5.30	7.00	5.89
maintaining emotional control during competition	6.25	7.00	7.00	5.80	7.00	4.67
coaches' personality	6.25	5.68	6.00	6.50	7.00	6.89
focusing on your own team, not the opposition	6.38	6.21	6.17	7.00	6.17	7.00
post-game summary	6.38	6.84	7.00	4.60	7.00	6.33
feedback from assistant coaches between periods	6.38	6.68	7.00	6.20	7.00	4.56
evaluating coaches' performance during competition	6.38	6.21	7.00	5.80	7.00	6.22
focusing on the game during competition	6.38	6.79	7.00	5.40	7.00	5.67

Table 7

Distance Between the Content Labels of Cluster Two and the Center of Clusters One to Six

Content Labels of Cluster Two	Distance to Center					
	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
goal-setting	7.00	5.16	7.00	6.80	6.67	7.00
effects of a brawl on team unity	7.00	5.53	6.00	7.00	6.92	7.00
the vision	6.88	5.58	6.67	7.00	6.58	7.00
effects of bonding on team building	7.00	5.63	5.67	7.00	6.83	7.00
coaches' personality	6.25	5.68	6.00	6.50	7.00	6.89
role of the coach in team building	7.00	5.74	7.00	6.90	6.75	7.00
painting the big picture	6.88	5.79	6.33	6.40	7.00	7.00
player evaluation	6.63	5.84	7.00	6.30	6.33	6.56
role of assistant coach	7.00	5.95	7.00	7.00	7.00	6.44
wallowing	7.00	5.95	7.00	6.50	6.92	7.00
being the hardest working team	7.00	6.05	6.17	7.00	6.33	6.67
reading your team	7.00	6.11	6.17	6.10	6.92	7.00
keeping a log book	7.00	6.11	7.00	7.00	6.33	7.00
self evaluation of coaches' performance	7.00	6.16	7.00	6.40	7.00	6.78
building a training plan	7.00	6.13	6.33	7.00	4.33	7.00
evaluating coaches' performance during competition	6.38	6.21	7.00	5.80	7.00	6.22
getting the best out of everybody	7.00	6.21	4.83	7.00	6.08	7.00
focusing on your own team, not the opposition	6.38	6.21	6.17	7.00	6.17	7.00

Table 7: Cont.

Content Labels of Cluster Two	Distance to Center					
	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
creating the right coach-player environment	7.00	6.32	2.50	7.00	6.33	6.89
innovations	7.00	6.37	7.00	7.00	6.75	7.00
different coaching styles	6.88	6.42	7.00	6.90	7.00	6.89
communicating with players	7.00	6.42	3.17	6.40	7.00	6.11
getting the most from your players in practice	6.13	6.42	5.50	7.00	4.08	6.67
superstitions	7.00	6.47	7.00	7.00	7.00	6.67
Importance of teaching cues, orchestration	7.00	6.47	6.50	6.70	7.00	6.00

selling the vision. This category included the conceptual rationale for having a training plan, but did not include the operationalization of that plan.

The third cluster of this solution (Table 8) was very compact. In terms of component content labels, only eight fell within three standard deviations of the prototype. This cluster, "crafting the coach-player environment" was made up of the content labels that overlapped between clusters one and two ("immediate preparation for competition" and "building a training plan") of the three cluster solution. Combining elements of communication, personal relation skills, and team ethic, this category expanded upon the relationship between short- and long-term preparation.

Cluster four, presented in Table 9, centered around specific opportunities to teach, within competition. This included pre and post game talks, dealing with winning and losing, teaching in-between periods, and the monitoring and preparation and evaluation of the coach. This cluster differed from cluster three of the three cluster solution ("during competition") in that it sharpened the focus from just what was going on in competition, to what was being taught in, and through competition.

Table 10 presents cluster five of the six cluster solution. This cluster refined cluster one, "immediate preparation for competition of the

Table 8

Distance Between the Content Labels of Cluster Three and the Center of Clusters One to Six

Content Labels of Cluster Three	Distance to Center					
	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
creating the right coach-player environment	7.00	6.32	2.50	7.00	6.33	6.89
dealing with players fairly	7.00	7.00	2.50	6.90	6.92	6.44
communicating with players	7.00	6.42	3.17	6.40	7.00	6.11
gaining the confidence of the players	7.00	6.74	3.17	7.00	6.75	7.00
dealing with players perceptions	7.00	7.00	3.83	6.90	7.00	6.89
getting the best out of everybody	7.00	6.21	4.83	7.00	6.08	7.00
getting the most from your players in practice	6.13	6.42	5.50	7.00	4.08	6.67
effects of bonding on team building	7.00	5.63	5.67	7.00	6.83	7.00

Table 9

Distance Between the Content Labels of Cluster Four and the Center of Clusters One to Six

Content Labels of Cluster Four	Distance to Center					
	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
dealing with winning and losing	6.50	6.89	6.67	4.40	6.75	6.44
losing: post-game evaluation	6.50	6.79	7.00	4.50	7.00	6.22
post-game summary	6.38	6.84	7.00	4.60	7.00	6.33
winning: post-game evaluation	6.88	6.68	7.00	4.90	7.00	6.56
pre-game talk	5.38	7.00	6.50	5.10	7.00	6.33
pre-game warm-up	5.63	7.00	7.00	5.30	7.00	6.33
non-verbal communication during competition	6.25	6.63	6.50	5.30	7.00	5.89
focusing on the game during competition	6.38	6.79	7.00	5.40	7.00	5.67
between periods improvement points	6.63	7.00	6.33	5.60	7.00	3.56
maintaining emotional control during competition	6.25	7.00	7.00	5.80	7.00	4.67
evaluating coaches' performance during competition	6.38	6.21	7.00	5.80	7.00	6.22
coaches' pre-game preparation	3.13	6.95	7.00	5.90	6.83	6.22
making adjustments during competition	6.50	6.95	7.00	6.00	7.00	3.89
making adjustments between periods	6.50	6.95	7.00	6.00	7.00	3.11
opportunities to teach in game situations	6.50	6.58	7.00	6.00	7.00	4.67
reading your team	7.00	6.11	6.17	6.10	6.92	7.00
coaches' pre-game rituals	3.38	6.89	7.00	6.20	7.00	6.22
players pre-game preparation	3.00	7.00	7.00	6.20	6.92	6.56
feedback from assistant coaches between periods	6.38	6.68	7.00	6.20	7.00	4.56

Table 9: Cont.

Content Labels of Cluster Four	Distance to Center					
	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
coaches' mental preparation	4.00	6.95	7.00	6.30	7.00	6.33
finding coachable moments	6.88	6.79	7.00	6.30	6.92	6.00
player evaluation	6.63	5.84	7.00	6.30	6.33	6.56
importance of coaches' preparation	3.38	6.79	7.00	6.30	7.00	6.33
dealing with players between periods	6.50	6.95	5.83	6.30	7.00	3.44
communicating with players	7.00	6.42	3.17	6.40	7.00	6.11
painting the big picture	6.88	5.79	6.33	6.40	7.00	7.00
self evaluation of coaches' performance	7.00	6.16	7.00	6.40	7.00	6.78

three cluster solution, centering specifically on the “practice” related aspects of preparation for competition. Clusters one and five of the six cluster solution appeared to have been broken down from cluster one of the three cluster solution, separating “practice” from “preparation.”

Cluster four was comprised of the teaching aspects of competition. Cluster six added to the competition domain, focusing on what was actually done during competition. Operating in-between periods, getting feedback from assistants, benching players, and maintaining emotional control were all part of cluster six. Interestingly, the teaching process also factored into this cluster as well as in cluster four.

Category Structure

Content labels from cluster one, “Immediate Preparation for Competition” were most closely related to cluster four “Coachable Moments in Competition.” Overlapping content labels dealt with pre-game preparation for both players and coach, non-verbal communication, between period adjustments and post game summary. Overlap between cluster one and cluster two, “Goal-setting” was minimal with content label “coaches’ personality” having the only obvious overlap. Cluster three, “Crafting the Coach-player Environment” exhibited overlap on content

Table 10

Distance Between the Content Labels of Cluster Five and the Center of Clusters One to Six

Content Labels of Cluster Five	Distance to Center					
	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
creating a flow to practice	7.0	7.0	6.83	7.0	3.50	7.0
practice plans	7.0	6.9	6.83	7.0	3.50	7.0
use of a training plan	7.0	6.3	6.83	7.0	3.67	7.0
practicing at game speed	7.0	6.8	6.83	7.0	3.75	7.0
practicing for game situations	7.0	6.7	6.83	7.0	3.75	7.0
cycle of playing - practicing in university	6.7	6.8	7.00	7.0	4.00	7.0
getting the most from your players in practice	6.1	6.4	5.50	7.0	4.08	6.6
base practice on previous game	5.7	6.8	6.67	6.6	4.17	7.0
building a training plan	7.0	6.1	6.33	7.0	4.33	7.0
knowing when to work and when not to work in practice	6.8	7.0	6.50	7.0	4.67	7.0
keeping past training plans	6.7	6.8	7.00	7.0	5.08	7.0
scheduling	6.8	7.0	7.00	7.0	5.50	7.0
getting the best out of everybody	7.0	6.2	4.83	7.0	6.08	7.0
preparation for competition through video	3.1	6.8	7.00	6.5	6.17	7.0
focusing on your own team, not the opposition	6.3	6.2	6.17	7.0	6.17	7.0
use of video in game preparation	3.2	6.7	7.00	6.5	6.25	7.0
creating the right coach-player environment	7.0	6.3	2.50	7.0	6.33	6.8
being the hardest working team	7.0	6.0	6.17	7.0	6.33	6.6
player evaluation	6.6	5.8	7.00	6.3	6.33	6.5
keeping a log book	7.0	6.1	7.00	7.0	6.33	7.0
the vision	6.8	5.5	6.67	7.0	6.58	7.0

Table 11

Distance Between the Content Labels of Cluster Six and the Center of Clusters One to Six

Content Labels of Cluster Six	Distance to Center					
	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
making adjustments between periods	6.50	6.9	7.0	6.00	7.0	3.1
dealing with players between periods	6.50	6.9	5.8	6.30	7.0	3.4
between periods improvement points	6.63	7.0	6.3	5.60	7.0	3.5
making adjustments during competition	6.50	6.9	7.0	6.00	7.0	3.8
feedback from assistant coaches between periods	6.38	6.6	7.0	6.20	7.0	4.5
benching players	7.00	6.6	6.3	6.90	7.0	4.6
maintaining emotional control during competition	6.25	7.0	7.0	5.80	7.0	4.6
opportunities to teach in game situations	6.50	6.5	7.0	6.00	7.0	4.6
teaching points	6.88	6.7	7.0	7.00	6.7	5.5
focusing on the game during competition	6.38	6.7	7.0	5.40	7.0	5.6
non-verbal communication during competition	6.25	6.6	6.5	5.30	7.0	5.8

labels "getting the most from your players in practice" "coaches' personality."

Content labels that dealt with the use of video in player and coach preparation for competition, and the planning and work ethic of practice exhibited overlap with cluster five "Practice". Overlap between cluster one and cluster six, "Between Periods" focused on content labels that dealt with all aspects of the coaches' pre-game preparation, as well as communication, emotional control and feedback from assistants during the game.

Cluster two, presented in Table 7 had the most overlap with cluster three, "Crafting the Coach-player Environment". Content labels that dealt with team building, work ethic, and communication were at the center of the overlap. Overlap between cluster two and cluster one "Immediate Preparation for Competition" centered on content labels that dealt with the coaches' personality, and the evaluation of coaching performance, as well as focusing on your own team and getting the most from players in practice). Content labels close to the center of cluster four, "Coachable moments in Competition" dealt with reading the team and the evaluation of the coaches' performance

Cluster three, "Crafting the Coach-player Environment" (presented in Table 8) overlapped primarily with cluster two, "goal-setting." Content labels that dealt with getting the best out of everybody and team building were at the center of this overlap. Cluster one, "Immediate Preparation for Competition" only exhibited one instance of overlap, the content label "getting the best out of everybody". There was no overlap between "Crafting the Coach-player Environment" and cluster four "Coachable Moments in Competition." Content labels that were close to the center of cluster five "Practice" dealt with getting the best out of everybody, while content labels that were close to the center of cluster six, "Between Periods" dealt with dealing with and communicating to the players.

Cluster four, "Coachable Moments in Competition", presented in Table 9, had considerable overlap with the other clusters of the solution, excluding cluster five. Content labels that dealt with coach and player pre-game preparation both mental and physical, as well as content labels that dealt with pre-game warm-up from cluster four were also close to the center of cluster one "Immediate Preparation for Competition." Content labels that dealt with communicating to, dealing with, and reading the team were close to the center of cluster three, "Crafting the Coach-player Environment" while content labels that dealt with player evaluation were

close to the center of cluster two, "goal-setting." Cluster five, "Practice" only overlapped on the content label "player evaluation", while content labels that dealt with focusing on the game and making adjustments in competition were all close to the center of cluster six "Between Periods".

Cluster five (Table 10) had fairly uniform overlap across the other five categories. Content labels that focused on getting the most from players in practice, basing the practice on previous games, and the use of video in preparation for competition were also related to cluster one "Immediate Preparation For Competition." Content Labels that dealt with the concepts of team building and goal-setting were close to the center of cluster two, "Goal-setting." Cluster three, "Crafting the Coach-player Environment" overlapped with cluster five on content labels that dealt with getting the best from everybody as well as gaining the confidence of the players, and crafting the environment. Content labels that dealt with player evaluation, the use of video in preparation, and dealing with winning and losing were all close to the center of cluster four "Coachable Moments in Competition" while content labels that dealt with player evaluation were close to the center of cluster six "Between Periods".

The final cluster of this solution, cluster six, "Between Periods" was presented in Table 11. Content labels from cluster six that dealt with

emotional control and non-verbal communication were related to cluster one "Immediate Preparation for Competition." Content labels that dealt with dealing with players, benching players, and between period improvement points were close to the center of cluster three "Crafting the Coach-player Environment". Cluster four, "Coachable Moments in Competition" exhibited the most overlap with the "Between Periods Cluster." Content labels that dealt with making adjustments in competition as well as those that dealt with communication, control and focus during the game and teaching in game situations were all close to the center of cluster four. Clusters two "Goal-setting" and five "Practice" were unrelated to the "Between Periods" cluster.

Interpreting the Structure of the Six Cluster Solution

Cluster one, "Immediate Preparation for Competition" had the strongest relationship with cluster four, "Coachable Moments in Competition" of the six cluster solution. Pre-game preparation was perceived as having a dual purpose; serving both a preparatory and a didactic role. "Immediate Preparation for Competition" was fairly independent of cluster two, "Goal-setting" with the only source of overlap being the coaches' personality and the evaluation of coaching performance. "Immediate Preparation for Competition" also had relatively

little in common with "Crafting the Coach Player Environment" - cluster three. Cluster one was, however, related to cluster five, "Practice" with regards to the use of video, by both coach and player, in preparation for competition, and by the reactive nature of the practice to the previous game. The relationship between cluster one and cluster six, "Between Periods" centered on all aspects of the coaches' pre-game preparation, as well as communication and emotional control in competition.

Cluster two, "Goal-setting" was closely related to cluster three "Crafting the Coach-Player Environment." With the process of goal-setting heavily influenced by the selling of the coaches' vision, the need for a good relationship with the players understandable. "Goal-setting" was relatively unrelated to "Immediate Preparation for Competition", and "Between Periods" and "Coachable Moments in Competition" with the only overlap being in the areas of player evaluation.

"Crafting the Coach-player Environment" - cluster three, was exhibited the most overlap with cluster two, "Goal-setting." Conversely, no relationship was found between cluster three and cluster four "Coachable Moments in Competition." Overlap between cluster four and "Practice" - cluster five, and "Immediate Preparation for Competition" - cluster one, centered on getting the most from everybody. Whereas the

overlap with cluster six "Between Periods" focused on dealing with, and communicating to the players.

Cluster four, "Coachable Moments in Competition" overlapped extensively with the other clusters in the solution, with the exception of cluster five, "Practice." "Immediate Preparation for Competition", "Goal-setting", "Crafting the Coach-player Environment", and "Between Periods" all related to cluster four. Cluster five "Practice" being so far removed from competition did not exhibit the overlap that the other, competition related categories did.

Cluster five, "Practice" drew upon elements of all the other clusters. The "use of video," and the "direction of practice" linked cluster five with cluster one "Immediate Preparation for Competition." The relationship between "Practice" and "Goal-setting" clusters centered on the use of team building and goal-setting in practice. "Practice" drew upon the process of getting the best from everybody, of cluster three "Crafting the Coach-player Environment", as well as the concepts of evaluation, and dealing with winning and losing, from "Coachable Moments in Competition" - cluster four. Player evaluation was also the source of overlap between "Practice" and "Between Periods"

"Between Periods" - cluster six, exhibited its most extensive relationship with "Coachable Moments in Competition" - cluster four. Making adjustments in competition, communication, emotional control, and teaching in game situations, were all sources of overlap between cluster six and cluster four. "Crafting the Coach-player Environment" - cluster three, related "Between Periods" on issues such as dealing with, and benching players, while cluster one, "Immediate Preparation for Competition" overlapped on aspects of emotional control and communication. "Practice" and "Goal-setting" were unrelated to "Between Periods."

Interpreting the 12 Cluster Solution

The 12 cluster solution produced the following 11 interpretable categories; Cluster one "Goal-setting," cluster two "Building a Team Work Ethic," cluster three, "Making Adjustments in Competition," cluster four "Immediate Preparation for Competition," Cluster five "Training Plan," cluster six "Evaluation," cluster eight "Pre- and Post Game Talk," cluster nine "Practice," cluster 10 "Teaching," cluster 11 "Team Building" and cluster 12 "Crafting the Coach - Player Environment." A twelfth cluster was identified, but was uninterpretable and will be discussed later.

Category Composition

Cluster one, "Goal-setting" refined cluster two of the six cluster solution (also called "goal-setting") by removing elements of team building (see Table 12). Central to the concept of goal-setting was the implementation and evaluation of a training plan. This included selling the plan, and motivating players to follow it.

Table 13 presents the second cluster in this solution, "Building a Team Work Ethic" which seemed to be a further refinement of cluster two of the six cluster solution. Content labels that dealt with motivating the team, building a sense of team unity, and goal-setting, that were clustered

Table 12

Distance Between the Content Labels of Cluster One and the Center of Clusters One to Twelve

		Distance to Center											
Content Labels of Cluster One		Clus. 1	Clus. 2	Clus. 3	Clus. 4	Clus. 5	Clus. 6	Clus. 8	Clus. 9	Clus. 10	Clus. 11	Clus. 12	
goal-setting	2.33	5.33	7.00	7.00	6.20	5.60	6.67	7.00	7.00	5.20	7.00	7.00	
building a training plan	3.33	6.33	7.00	7.00	2.60	6.40	7.00	5.57	7.00	7.00	6.20	6.20	
keeping a log book	3.67	7.00	7.00	7.00	5.40	6.20	7.00	7.00	6.50	7.00	7.00	7.00	
the vision	3.67	5.67	7.00	6.88	6.00	7.00	7.00	7.00	7.00	4.40	6.60	6.60	
being the hardest	4.00	2.67	6.63	7.00	7.00	7.00	7.00	5.86	7.00	7.00	6.80	6.80	
working team													
player evaluation	4.00	7.00	6.50	6.63	5.80	3.60	6.50	6.71	7.00	7.00	7.00	7.00	
painting the big picture	4.00	7.00	7.00	6.88	7.00	7.00	6.17	7.00	6.67	4.40	6.20	6.20	
use of a training plan	5.00	6.67	7.00	7.00	2.60	6.40	7.00	4.43	7.00	6.20	7.00	7.00	

Table 13

Distance Between the Content Labels of Cluster Two and the Center of Clusters One to Twelve

	Distance to Center											
Content Labels of Cluster Two	Clus. 1	Clus. 2	Clus. 3	Clus. 4	Clus. 5	Clus. 6	Clus. 8	Clus. 9	Clus. 10	Clus. 11	Clus. 12	
getting the best out of everybody	7.00	2.00	7.00	7.00	6.80	7.00	7.00	5.57	7.00	5.80	5.60	
focusing on your own team, not the opposition	7.00	2.33	7.00	6.38	6.20	7.00	7.00	6.14	7.00	5.80	7.00	
being the hardest working team	4.00	2.67	6.63	7.00	7.00	7.00	7.00	5.86	7.00	7.00	6.80	
getting the most from your players in practice	7.00	2.67	7.00	6.13	5.40	7.00	7.00	3.14	6.50	6.40	6.20	
effects of bonding on team building	5.67	5.00	7.00	7.00	7.00	7.00	7.00	6.71	7.00	3.20	6.00	
effects of a brawl on team unity	5.33	5.33	7.00	7.00	7.00	7.00	7.00	6.86	7.00	3.00	6.20	
practicing for game situations	7.00	5.33	7.00	7.00	5.60	7.00	7.00	2.43	7.00	7.00	7.00	
goal-setting	2.33	5.33	7.00	7.00	6.20	5.60	6.67	7.00	7.00	5.20	7.00	

within the "Goal-setting" category of the six cluster solution, were isolated into their own category in the 12 cluster solution.

Cluster three, "Making Adjustments in Competition" (Table 14) was virtually unchanged from cluster six "Between Periods" of the six cluster solution. The difference being that the 12 cluster solution reduced the number of composite content labels from 11 to 10 by removing "teaching points" from the solution. Cluster four, "Immediate Preparation for Competition" was identical to the cluster of the same label from the six cluster solution (See Table 15)

Cluster five, "Training Plan," presented in Table 16 once again refined cluster two of the six cluster solution. Content labels that dealt with all aspects of the training plan, from construction to scheduling constraints, were isolated in this cluster. Interestingly, elements of practice (cluster five of the six cluster solution) were also included in this cluster.

Cluster six "Evaluation" presented in Table 17 included content labels that dealt with all aspects of player and coach evaluation. This "Evaluation" cluster was not noticeably extracted from any one of the larger clusters of the six cluster solution, rather, it appeared to draw from all of them, perhaps providing one of the overlapping categories.

Table 14

Distance Between the Content Labels of Cluster Three and the Center of Clusters One to Twelve

Content Labels of Cluster Three	Distance to Center										
	Clus. 1	Clus. 2	Clus. 3	Clus. 4	Clus. 5	Clus. 6	Clus. 8	Clus. 9	Clus. 10	Clus. 11	Clus. 12
making adjustments between periods	7.00	7.00	2.63	6.50	7.00	6.60	6.00	7.00	6.67	7.00	7.00
dealing with players between periods	7.00	7.00	3.50	6.50	7.00	6.80	6.50	7.00	6.17	7.00	5.60
making adjustments during competition	7.00	7.00	3.50	6.50	7.00	6.60	6.00	7.00	6.67	7.00	7.00
between periods improvement points	7.00	7.00	3.88	6.63	7.00	6.80	6.00	7.00	5.17	7.00	6.20
feedback from assistant coaches between periods	7.00	7.00	4.25	6.38	7.00	5.80	6.17	7.00	6.67	7.00	7.00
maintaining emotional control during competition	7.00	7.00	4.25	6.25	7.00	6.80	6.00	7.00	6.50	7.00	7.00
benching players	7.00	6.00	4.63	7.00	7.00	6.20	7.00	7.00	6.67	7.00	6.20
focusing on the game during competition	7.00	7.00	4.88	6.38	7.00	6.80	6.17	7.00	6.83	6.20	7.00
opportunities to teach in game situations	7.00	7.00	5.00	6.50	7.00	6.80	6.67	7.00	4.33	7.00	7.00
non-verbal communication during competition	7.00	7.00	5.38	6.25	7.00	6.80	6.00	7.00	6.83	6.20	6.40

Table 15

Distance Between the Content Labels of Cluster Four and the Center of Clusters One to Twelve

Content Labels of Cluster Four	Distance to Center											
	Clus. 1	Clus. 2	Clus. 3	Clus. 4	Clus. 5	Clus. 6	Clus. 8	Clus. 9	Clus. 10	Clus. 11	Clus. 12	
players pre-game preparation	7.00	7.00	6.38	3.00	6.80	6.80	6.17	7.00	7.00	7.00	7.00	
coaches' pre-game preparation	7.00	7.00	6.13	3.13	6.60	6.80	5.83	7.00	6.67	7.00	7.00	
preparation for competition through video	7.00	6.33	7.00	3.13	6.80	7.00	6.17	5.71	7.00	7.00	7.00	
use of video in game preparation	6.67	6.00	7.00	3.25	6.80	7.00	6.17	5.86	7.00	7.00	7.00	
coaches' pre-game rituals	7.00	7.00	6.13	3.38	7.00	6.80	6.17	7.00	6.83	7.00	7.00	
importance of coaches' preparation	7.00	7.00	6.25	3.38	7.00	6.80	6.33	7.00	6.67	6.80	7.00	
coaches' mental preparation	7.00	7.00	6.25	4.00	7.00	6.80	6.50	7.00	6.83	7.00	7.00	
over use of video in team preparation	7.00	7.00	7.00	4.25	7.00	6.40	6.33	6.86	6.83	7.00	7.00	
pre-game talk	7.00	7.00	6.13	5.38	7.00	7.00	4.17	7.00	7.00	7.00	6.40	
pre-game warm-up	7.00	7.00	6.13	5.63	7.00	7.00	4.50	7.00	7.00	7.00	7.00	
base practice on previous game	7.00	7.00	7.00	5.75	6.20	6.40	6.50	2.71	6.83	7.00	6.60	
getting the most from your players in practice	7.00	2.67	7.00	6.13	5.40	7.00	7.00	3.14	6.50	6.40	6.20	
maintaining emotional control during competition	7.00	7.00	4.25	6.25	7.00	6.80	6.00	7.00	6.50	7.00	7.00	
non-verbal communication during competition	7.00	7.00	5.38	6.25	7.00	6.80	6.00	7.00	6.83	6.20	6.40	

Table 15: Cont.

Content Labels of Cluster Four	Distance to Center											
	Clus. 1	Clus. 2	Clus. 3	Clus. 4	Clus. 5	Clus. 6	Clus. 8	Clus. 9	Clus. 10	Clus. 11	Clus. 12	
coaches' personality	7.00	7.00	6.88	6.25	7.00	5.40	7.00	7.00	6.50	5.80	5.80	
feedback from assistant coaches between periods	7.00	7.00	4.25	6.38	7.00	5.80	6.17	7.00	6.67	7.00	7.00	
focusing on your own team, not the opposition	7.00	2.33	7.00	6.38	6.20	7.00	7.00	6.14	7.00	5.80	7.00	
evaluating coaches' performance during competition	7.00	7.00	6.13	6.38	7.00	3.60	6.33	7.00	6.67	6.80	7.00	
post-game summary	7.00	7.00	6.13	6.38	7.00	6.80	3.50	7.00	7.00	6.40	7.00	
focusing on the game during competition	7.00	7.00	4.88	6.38	7.00	6.80	6.17	7.00	6.83	6.20	7.00	

Table 16

Distance Between the Content Labels of Cluster Five and the Center of Clusters One to Twelve

Content Labels of Cluster Five	Distance to Center											
	Clus. 1	Clus. 2	Clus. 3	Clus. 4	Clus. 5	Clus. 6	Clus. 8	Clus. 9	Clus. 10	Clus. 11	Clus. 12	
building a training plan	3.33	6.33	7.00	7.00	2.60	6.40	7.00	5.57	7.00	7.00	6.20	
use of a training plan	5.00	6.67	7.00	7.00	2.60	6.40	7.00	4.43	7.00	6.20	7.00	
cycle of playing - practicing in university	7.00	6.33	7.00	6.75	3.20	7.00	7.00	4.57	7.00	7.00	7.00	
scheduling	7.00	7.00	7.00	6.88	3.40	7.00	7.00	7.00	7.00	7.00	7.00	
keeping past training plans	7.00	7.00	7.00	6.75	4.00	7.00	7.00	5.86	6.67	7.00	7.00	
practice plans	7.00	6.67	7.00	7.00	4.60	7.00	7.00	2.71	6.83	7.00	7.00	
creating a flow to practice	7.00	6.67	7.00	7.00	4.60	7.00	7.00	2.71	7.00	7.00	7.00	
keeping a log book	3.67	7.00	7.00	7.00	5.40	6.20	7.00	7.00	6.50	7.00	7.00	
getting the most from your players in practice	7.00	2.67	7.00	6.13	5.40	7.00	7.00	3.14	6.50	6.40	6.20	
practicing for game situations	7.00	5.33	7.00	7.00	5.60	7.00	7.00	2.43	7.00	7.00	7.00	
practicing at game speed	7.00	6.00	7.00	7.00	5.60	7.00	7.00	2.43	7.00	7.00	7.00	
player evaluation	4.00	7.00	6.50	6.63	5.80	3.60	6.50	6.71	7.00	7.00	7.00	

Table 17

Distance Between the Content Labels of Cluster Six and the Center of Clusters One to Twelve

Content Labels of Cluster Six	Distance to Center											
	Clus. 1	Clus. 2	Clus. 3	Clus. 4	Clus. 5	Clus. 6	Clus. 8	Clus. 9	Clus. 10	Clus. 11	Clus. 12	
wallowing	6.3	7.0	7.0	7.0	7.0	3.2	6.5	6.8	7.0	6.8	7.0	
self evaluation of coaches' performance	7.0	7.0	6.7	7.0	7.0	3.2	6.8	7.0	7.0	7.0	7.0	
player evaluation	4.0	7.0	6.5	6.6	5.8	3.6	6.5	6.7	7.0	7.0	7.0	
evaluating coaches' performance during competition	7.0	7.0	6.1	6.3	7.0	3.6	6.3	7.0	6.6	6.8	7.0	
role of assistant coach	7.0	7.0	6.3	7.0	7.0	4.6	7.0	7.0	7.0	6.2	7.0	
coaches' personality	7.0	7.0	6.8	6.2	7.0	5.4	7.0	7.0	6.5	5.8	5.8	
goal-setting	2.3	5.3	7.0	7.0	6.2	5.6	6.6	7.0	7.0	5.2	7.0	
feedback from assistant coaches between periods	7.0	7.0	4.2	6.3	7.0	5.8	6.1	7.0	6.6	7.0	7.0	

Cluster eight, "Pre- and Post Game Talk," presented in Table 18, was comprised of content labels extracted from cluster four "Coachable Moments in Competition" of the six cluster solution. Elements that dealt with the post-game summary, winning and losing, and the pre-game talk were included in this category.

Cluster nine "Practice" is a shortened version of cluster five "Practice" of the six cluster solution. From cluster five of the six cluster solution, the last five content labels were dropped, to create the more focused cluster nine of the 12 cluster solution presented in Table 19.

Table 20 presents cluster 10 "Teaching" of the 12 cluster solution. This cluster, extracted from clusters four "Coachable Moments in Competition" and six "Between Periods" of the six cluster solution included content labels relevant to the didactic process.

Cluster 11 "Team Building" is the final cluster refined from cluster two "Goal-setting" of the six cluster solution. Drawing on the content of cluster one "Goal-setting," cluster two "Building a Team Work Ethic," and cluster 12 "Crafting the Coach - Player Environment" of the 12 cluster solution, this cluster focused on content labels that related to the building of a team identity, goal-setting, motivation and coaches' personality (Table 21).

Table 18

Distance Between the Content Labels of Cluster Eight and the Center of Clusters One to Twelve

Content Labels of Cluster Eight	Distance to Center											
	Clus. 1	Clus. 2	Clus. 3	Clus. 4	Clus. 5	Clus. 6	Clus. 8	Clus. 9	Clus. 10	Clus. 11	Clus. 12	
losing: post-game evaluation	7.00	7.00	6.25	6.50	7.00	6.20	3.17	7.00	6.67	7.00	7.00	
dealing with winning and losing	7.00	7.00	6.25	6.50	7.00	6.80	3.33	6.57	6.83	6.60	6.60	
post-game summary	7.00	7.00	6.13	6.38	7.00	6.80	3.50	7.00	7.00	6.40	7.00	
winning: post-game evaluation	6.33	7.00	6.50	6.88	7.00	6.00	4.00	7.00	7.00	6.80	7.00	
pre-game talk	7.00	7.00	6.13	5.38	7.00	7.00	4.17	7.00	7.00	7.00	6.40	
pre-game warm-up	7.00	7.00	6.13	5.63	7.00	7.00	4.50	7.00	7.00	7.00	7.00	
coaches' pre-game preparation	7.00	7.00	6.13	3.13	6.60	6.80	5.83	7.00	6.67	7.00	7.00	

Table 19

Distance Between the Content Labels of Cluster Nine and the Center of Clusters One to Twelve

Content Labels of Cluster Nine	Distance to Center											
	Clus. 1	Clus. 2	Clus. 3	Clus. 4	Clus. 5	Clus. 6	Clus. 8	Clus. 9	Clus. 10	Clus. 11	Clus. 12	
practicing for game situations	7.00	5.33	7.00	7.00	5.60	7.00	7.00	2.43	7.00	7.00	7.00	
practicing at game speed	7.00	6.00	7.00	7.00	5.60	7.00	7.00	2.43	7.00	7.00	7.00	
creating a flow to practice	7.00	6.67	7.00	7.00	4.60	7.00	7.00	2.71	7.00	7.00	7.00	
practice plans	7.00	6.67	7.00	7.00	4.60	7.00	7.00	2.71	6.83	7.00	7.00	
base practice on previous game	7.00	7.00	7.00	5.75	6.20	6.40	6.50	2.71	6.83	7.00	6.60	
getting the most from your players in practice	7.00	2.67	7.00	6.13	5.40	7.00	7.00	3.14	6.50	6.40	6.20	
knowing when to work and when not to work in practice	7.00	6.67	7.00	6.88	6.40	7.00	7.00	3.43	7.00	7.00	6.60	
use of a training plan	5.00	6.67	7.00	7.00	2.60	6.40	7.00	4.43	7.00	6.20	7.00	
cycle of playing - practicing in university	7.00	6.33	7.00	6.75	3.20	7.00	7.00	4.57	7.00	7.00	7.00	
getting the best out of everybody	7.00	2.00	7.00	7.00	6.80	7.00	7.00	5.57	7.00	5.80	5.60	
building a training plan	3.33	6.33	7.00	7.00	2.60	6.40	7.00	5.57	7.00	7.00	6.20	
preparation for competition through video	7.00	6.33	7.00	3.13	6.80	7.00	6.17	5.71	7.00	7.00	7.00	
keeping past training plans	7.00	7.00	7.00	6.75	4.00	7.00	7.00	5.86	6.67	7.00	7.00	
use of video in game preparation	6.67	6.00	7.00	3.25	6.80	7.00	6.17	5.86	7.00	7.00	7.00	
being the hardest working team	4.00	2.67	6.63	7.00	7.00	7.00	7.00	5.86	7.00	7.00	6.80	
focusing on your own team, not the opposition	7.00	2.33	7.00	6.38	6.20	7.00	7.00	6.14	7.00	5.80	7.00	
creating the right coach-player environment	7.00	6.00	6.88	7.00	6.20	7.00	7.00	6.43	7.00	5.40	2.00	

Table 20

Distance Between the Content Labels of Cluster Ten and the Center of Clusters One to Twelve

Content Labels of Cluster Ten	Distance to Center											
	Clus. 1	Clus. 2	Clus. 3	Clus. 4	Clus. 5	Clus. 6	Clus. 8	Clus. 9	Clus. 10	Clus. 11	Clus. 12	
Importance of teaching cues, orchestration	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	3.33	7.00	6.40	
opportunities to teach in game situations	7.00	7.00	5.00	6.50	7.00	6.80	6.67	7.00	4.33	7.00	7.00	
finding coachable moments	7.00	7.00	6.50	6.88	7.00	7.00	6.83	6.86	4.67	6.80	7.00	
between periods improvement points	7.00	7.00	3.88	6.63	7.00	6.80	6.00	7.00	5.17	7.00	6.20	
teaching points	7.00	7.00	6.13	6.88	7.00	7.00	7.00	6.57	5.33	7.00	7.00	

Table 21

Distance Between the Content Labels of Cluster Eleven and the Center of Clusters One to Twelve

Content Labels of Cluster Eleven	Distance to Center											
	Clus. 1	Clus. 2	Clus. 3	Clus. 4	Clus. 5	Clus. 6	Clus. 8	Clus. 9	Clus. 10	Clus. 11	Clus. 12	
effects of a brawl on team unity	5.33	5.33	7.00	7.00	7.00	7.00	7.00	6.86	7.00	3.00	6.20	
effects of bonding on team building	5.67	5.00	7.00	7.00	7.00	7.00	7.00	6.71	7.00	3.20	6.00	
the vision	3.67	5.67	7.00	6.88	6.00	7.00	7.00	7.00	7.00	4.40	6.60	
reading your team	7.00	6.67	6.50	7.00	6.80	6.60	6.83	7.00	7.00	4.40	6.20	
painting the big picture	4.00	7.00	7.00	6.88	7.00	7.00	6.17	7.00	6.67	4.40	6.20	
role of the coach in team building	5.67	7.00	7.00	7.00	6.40	6.20	7.00	7.00	7.00	4.40	7.00	
goal-setting	2.33	5.33	7.00	7.00	6.20	5.60	6.67	7.00	7.00	5.20	7.00	
creating the right coach-player environment	7.00	6.00	6.88	7.00	6.20	7.00	7.00	6.43	7.00	5.40	2.00	
focusing on your own team, not the opposition	7.00	2.33	7.00	6.38	6.20	7.00	7.00	6.14	7.00	5.80	7.00	
coaches' personality	7.00	7.00	6.88	6.25	7.00	5.40	7.00	7.00	6.50	5.80	5.80	
getting the best out of everybody	7.00	2.00	7.00	7.00	6.80	7.00	7.00	5.57	7.00	5.80	5.60	

Table 22

Distance Between the Content Labels of Cluster Twelve and the Center of Clusters One to Twelve

Content Labels of Cluster Twelve	Distance to Center											
	Clus. 1	Clus. 2	Clus. 3	Clus. 4	Clus. 5	Clus. 6	Clus. 8	Clus. 9	Clus. 10	Clus. 11	Clus. 12	
creating the right coach-player environment	7.00	6.00	6.88	7.00	6.20	7.00	7.00	6.43	7.00	5.40	2.00	
dealing with players fairly	7.00	6.00	6.38	7.00	7.00	7.00	6.83	6.86	7.00	7.00	2.20	
communicating with players	6.33	7.00	6.00	7.00	7.00	7.00	6.50	7.00	6.50	6.20	2.40	
gaining the confidence of the players	7.00	6.33	7.00	7.00	7.00	7.00	7.00	6.57	7.00	6.00	2.80	
dealing with players perceptions	7.00	7.00	6.88	7.00	7.00	7.00	6.83	7.00	7.00	7.00	3.20	
getting the best out of everybody	7.00	2.00	7.00	7.00	6.80	7.00	7.00	5.57	7.00	5.80	5.60	
dealing with players between periods	7.00	7.00	3.50	6.50	7.00	6.80	6.50	7.00	6.17	7.00	5.60	

Cluster 12 "Crafting the Coach - Player Environment" remained almost unchanged from the cluster of the same name in the six cluster solution. Content labels "getting the most from your players in practice" and "effects of bonding on team building" were removed, while content label "dealing with players between periods" was added in the 12 cluster solution.

From the 12 cluster solution, one cluster that was labeled "uninterpretable" emerged. This cluster included content labels "coaches' personality," "superstitions," "non-verbal communication during competition," and "reading your team." Most likely, an artifact of the clustering process, this cluster is noteworthy in that it indicated which content labels did not seem to fit well within the other categories.

Category Structure

Table 12 presents the average distance between the content labels of cluster one "Goal-setting" and the centers of the other 10 clusters. Content labels from the "Goal-setting" cluster had the closest relationship, outside of their own cluster, with cluster five, "training Plan." Also related to goal-setting were "Evaluation," "Building a Team Work Ethic" and "Team Building." On the outside edge of this relationship, "Practice" and "Coach - Player Environment" also played a role in goal-setting.

Unrelated to "Goal-setting" were "Making Adjustments in Competition," "Pre- and Post- Game Talk," "Pre-Game Preparation" and "Teaching."

"Building A Team Work Ethic" - cluster two (Table 12) was closely related to the category "Goal-setting." This was not surprising, given the relationship of "Goal-setting" to "Building a Team Work Ethic" (Table 12). The "Practice" cluster had a greater influence on this category than it did on the "Goal-setting" category, however the "Training Plan" category had less of an influence on "Building a Team Work Ethic" than on "Goal-setting." Closely related to "Building A Team Work Ethic" was cluster 11 "Team Building," which also factored into the "Goal-setting" category.

Unrelated to "Team Work Ethic" were "Making Adjustments in Competition," "Pre-Game Preparation," "Evaluation". "Pre- and Post- Game Talk" and "Teaching."

Table 14 presents cluster three, "Making Adjustments in Competition." This cluster did not have the strong links to other clusters that "Goal-setting" and "Building A Team Work Ethic" had. "Teaching" and "Pre- and Post- Game Talk" seemed to be the closest related clusters, followed by "Evaluation" and "Coach - Player Environment." What was interesting were the clusters with which "Making Adjustments in Competition" had no relationship. "Goal-setting" "Building a Team Work

Ethic," "Training Plan," "Practice" and "Team Building" were all non-factors in "Making Adjustments in Competition."

"Pre-Game Preparation" presented in Table 15, exhibited many of the same characteristics as the previous cluster. Closest to this category were "Pre- and Post- Game Talk" and "Making Adjustments in Competition" Related clusters included "Practice," "Team Ethic" and "Evaluation." Unrelated to "Pre-Game Preparation" was "Goal-setting," "Coach-Player Environment," "Team Building," "Teaching" and "Training Plan."

Table 16 presented an interesting picture of Cluster five "Training Plan". This cluster was heavily influenced by cluster nine "Practice" with "Goal-setting" and "Team Ethic" having an influence. Unrelated clusters included "Making Adjustments in Competition," "Pre-Game Preparation," "Pre- and Post- Game Talk," "Teaching," "Team Building" and "Coach Player Environment." Given the strength of the relationship between "Goal-setting" and "Training Plan" and the minor influence of "Practice" on "Goal-setting", "Training Plan" appeared to provide the link between "Goal-setting" and "Practice."

Cluster six, "Evaluation" (Table 17) had only one strong link, that to the cluster "Goal-setting." On a lessor scale, "Evaluation" was related to

"Making Adjustments in Competition," and "Team Building." The minimal relationship between "Evaluation" and "Training Plan" and the strong relationship between "Evaluation" and "Goal-setting" was interpreted as indicating that it was the goals, and not the training plan that was being evaluated. Unrelated to "Evaluation" were "Building a Team Work Ethic," "Pre-Game Preparation," "Pre- and Post-Game Talk," "Practice," "Teaching" and "Coach - Player Environment."

The strong relationship between "Pre- and Post-Game Talk," "Pre-Game Preparation" and "Making Adjustments in Competition" (Table 18) was not surprising. What was interesting was the lack of any relationship between "Pre- and Post- Game Talk" and "Teaching," as the "Coachable Moments in Competition" cluster, of the six cluster solution was comprised of content labels from both categories. Other clusters unrelated to "Pre- and Post- Game Talk" included "Goal-setting," "Building a Team Work Ethic," "Training Plan," "Practice," "Team Building," and "Coach - Player Environment."

Table 19 presents cluster nine, "Practice." This cluster was heavily influenced by both "Building a Team Ethic" and "Training Plan." "Pre-Game Preparation," "Goal-setting" and "Coach - Player Environment" also had an influence on this cluster. Strangely, cluster 10 "Teaching" and

cluster six "Evaluation" were not related to "Practice." Other unrelated clusters included "Making Adjustments in Competition," "Pre- and Post-Game Talk," "Team Building" and "Coach - Player Environment."

The "Teaching" cluster, presented in Table 20, which was unrelated to "Practice" was related to "Making Adjustments in Competition." The content labels of the "Teaching" cluster dealt with finding teachable or coachable moments. This distinction most likely reflects the difference between the repetition of previously learned skills in practice, and the learning of new skills, at opportune times, during competition. None of the other clusters had an influence on the "Teaching" cluster.

Table 21 presents cluster 11, "Team Building." "Team Building" was related to "Building a Team Work Ethic," "Goal-setting" and "Coach-Player Environment." All other clusters were unrelated to "Team Building." The strong relationship between "Goal-setting" and "Team Building" and the relatively weak relationship between "Goal-setting" and "Coach - Player Environment" (Figure 41) was interpreted to indicate that the process of team building was the link between "Goal-setting" and "Coach Player Environment."

Table 22 presents the final cluster in this solution, "Coach - Player Environment." The cluster most related to "Coach - Player Environment" was "Building A Team Work Ethic," followed by "Making Adjustments in Competition" and "Team Building". Unrelated to "Coach - Player Environment" were "Goal-setting," "Pre-Game Preparation," "Training Plan," "Evaluation," "Pre- and Post- Game Talk," "Practice," "and Teaching."

Overlap between the different categories is present in all of the interpretable clusters, and in most cases, this overlap was not limited to just one cluster, multiple clusters seemed to overlap.

CHAPTER 5

DISCUSSION

The following discussion will take two separate directions. First, the structure of the coaches' knowledge, as depicted from the results of this analysis, will be interpreted. Secondly, the methodology of analysis will itself be critically analyzed and discussed.

Structure of Coaches' Knowledge

In order to convey the process under study effectively, Strauss and Corbin (1990) suggested the use of a narrative passage. From the analysis of the four different cluster solutions the following description, supplemented with supporting meaning units of the coaching process of four elite coaches, was generated.

The content labels, representing the coaches' knowledge as elicited through the interview process, were organized at the highest level by a single division between preparation and competition, as indicated by the two cluster solution. Although this conclusion was obvious from the analysis of the two cluster solution, the distinction between preparation and competition could also be traced through the three, six and twelve cluster solutions. In examining which categories related to each other, and which did not relate, this primary division held for all of the analyzed cluster

solutions. In the three cluster solution, preparation was divided into short- and long-term preparation, while competition remained the same. In the six and 12 cluster solutions, preparation and competition were further refined to smaller clusters. While these smaller clusters maintained their primary division between preparation and competition, overlap between the two primary categories was best seen at the level of the six and 12 cluster solutions, with categories like “Crafting the Coach-Player Environment” and “Practice” being the focal points of the overlap.

Preparation, the larger of the two categories, was divided into short-term and long-term preparation. Short-term preparation involved both the immediate, pre-competition preparation, warm-up, morning skate, players' and coaches' mental preparation:

- Some of the things that they would do in terms of their eating habits, or whatever, and then a little bit of mental preparation, visualization or whatever, and we encouraged them to do some of those things, without always monitoring it that closely – I guess you can never really monitor those things too closely, If a player says yeah coach, I did some visualization – you have got to take his word for it. Most of them are very good – most of the kids, after was introduced, became pretty accepting, pretty enthusiastic about that sort of thing. (Male University Ice Hockey Coach)

the use of video by both players and coaches:

- It is, the biggest part of my job is really watching video every day- I watch about four hours a day in video. It's either pre-scouting, or it's reviewing our game tapes- that's a big part of my job. (Male NHL Coach)

and the regular cycle of practice, the repetition of already learned skills, directed by the evaluation of the most recent competition:

- But in terms of our on-ice thing, I have to react almost to how we played the last couple of games. But they know that. They know if our power play was anemic for two games, and we're working on some power play in practice, they know exactly why- and I re-emphasize why. We're working today on power play today because we had three critical points in the last two games, where we could have put games away, and we didn't on the power play- here's where it broke down, here's what we are going to try to do to work on that today. So that's the way that I tie them into it right there. (Male University Ice Hockey Coach)

Long-term preparation was less automatic, and repetitious than short-term preparation. Long-term preparation, first and foremost, was concerned with the process of goal-setting. Goals had to be communicated effectively and persuasively to the players, who in turn, had to "buy into" them, in order for the coach to be successful:

- One of the things that I feel now is important is to try and make sure that you can create in the minds of all of your players, essentially the same vision. I've heard some people talk about it saying there's the north star, we want to follow the north star, whatever it is we want to accomplish, with the national junior team it was to win a gold medal. Once we have established – there's the goal, the gold medal – I've always tried to make sure that my athletes knew that there were lots of different paths to the gold medal, there's no one set way of doing it. The key to getting there, though, is the fact that we do decide, as a group, that we are going to follow one way, and the guy that has been designated to set the direction is the coach. (Male University Ice Hockey Coach)

These goals were team goals, and the process of goal-setting was both aided by, and directed towards creating, a team ethic

- One of the secrets is to try to develop some of that as early as you can in the season, to get those people communication to one another, to get them sharing, to get them to open up, and let them see one another in a light that's different than just playing hockey – see one another as students, see one another as people. Over the last few years we have tried to be more focused on things that we could do or things that we could contribute that would help team build. (Male University Ice Hockey Coach)

The processes of crafting the coach player environment and creating a team work ethic were all directed through the coaches' use of goal-setting. This process was further strengthened through team building, which served to define the coach - player environment:

- It does make sense, if anybody who has been through a brawl together, those people become very close, and any team that's been through a tough playoff and had some success, that generally is a reflection of those people being a lot closer than they ever were before – some of my closest friends in life are players that I played with when we won the centennial cup, that was a long road, and a lot of those people today remain my day to day friends. I notice it with our teams here, that the most successful teams are the ones that have had to have been through the tough battles to accomplish something.

The operationalization of the set goals was the training plan. A cycle of deliberate practice, directed by the coach, that was flexible enough to react to the ongoing needs of the team, as evaluated through competition:

- Practice always goes about what you think your team needs the most to improve it. If your idea of success in hockey is good defensive

hockey, you are going to spend a lot of time on defensive work. Only problem about defensive work in practice is that it means a lot of hard work, it means one on one battles, it means a lot of physical contact – you can only do that at a certain time of the year, like I said, I am not sure you can do a lot of one on one work and battles in practice, like when you get to January and February because there is an element of fatigue, already you will have played over 40 games, that is a grind, so how do you implement it? You try to use it at the best time possible, meaning that if you have a stretch of two or three days off, and you feel it is important to work on one on one contact, or one on one battles, you are going to want to integrate it where you know you have got a couple of days to recover. (Male University Ice Hockey Coach)

Preparation and competition could not possibly be mutually exclusive categories, they are dependent upon one another. Coaches prepare for specific competitions and the results of the competitions direct the preparation. What served to link preparation to competition was the practice. The deliberate, daily physical repetition of already learned, well defined skills, as directed by the coach, was based on both past performance in competition, and the evaluation of perceived needs relative to the next competition:

- I think that with the national team you are able to plan a little bit your year because there are several competitions, there is a time that it is easier to taper in your season. At the pro level I think that first of all there is a lot more pressure, every night it is 2 points, and you're judged on every performance, we come back from this trip and we got one point out of a potential 12, it is not received very well even though some of the people that have seen the games will say well the team is working hard so it doesn't look like you are losing, and not working hard, we are working hard. (Male NHL Assistant Coach)

The knowledge elicited about competition was broken down into three categories: pre-competition, during competition, and post-competition.

Pre-competition involved the immediate, short-term, game-day preparation for that specific opponent:

- One of the things that I thought was reasonably successful is that some of the points that we wanted to highlight, on poster board I had put down six or seven points that we had stressed during the week, and a lot of times these things would be repetitious. Taking pride in our work ethic was always number one, that sort of idea -- Golden Bear work ethic was something to be proud of and that you wanted to maintain. Their would be general points -- at the bottom would be reminders about, I used to put down a couple points about face-offs and the importance of face-offs, we want to be successful in the defensive zone face-offs, a reminder to a centerman that we wanted to be successful in defensive zone face-offs. (Male University Ice Hockey Coach)

The post-competition phase dealt with how the coach reacted to the outcome of the competition, and how that reaction was communicated to the players, win or lose:

- I'll always go in and talk to the players. I never, ever, don't go in and talk to the players when the game is over. And the message, you read your team, sometimes we mention our winning and losing record. Some nights we'll win, and not play very well. Basically, what I do, I let them celebrate the win. I only talk about the win. Because that's what their there for, and maybe we didn't win pretty, but we won. We got our two points, and for that particular night, I want the guys to think that they have accomplished something. The next day, I'll put the win into perspective for them. The next day, not that night- I don't want to ever tarnish the win. That's the essence of the game- they're playing a game- they won. They know pretty much that they didn't play well sometimes. But I'm not going to mention it- I'm gonna say, guy's, we won, we'll work on some things tomorrow, we got our

two points, here's some of the things you did pretty well, tomorrow we'll talk about a few other things. (Male NHL Head Coach)

The operation during competition category involved the coaches' emotional control:

- I guess I've learned to control my own competitive drives in terms of showing externally how I'm feeling inside. I've had a lot of people over the past few years say, well you're very unemotional, you seem to be very controlled, and very much in control, yet I know that's not necessarily the case, that I'm not in control a lot of times, but I think that I've learned that by making sure that I do look like I'm in control, it allows those people around me to be in control, and the situation to evolve more positively than if I'm out of control.

communication with the players, and the process of continually making adjustments both in the game, and between periods:

- I'd like to think that almost everything I do, at the start of the game, in-between periods, is pre-planned, is done with a specific idea in mind. even when I go in and blow up at the team. Generally speaking, I like that to be a staged event – I may be feeling that way anyway but I want it to be in control enough that the right things are said, not the wrong things. A lot of times I'll tell the assistant coaches, this is what's going to happen, I'm going to blow up, or I'm going to say something to these particular individuals, or I'm going to focus on these particular individuals, not necessarily saying their names. My players have always made it loud and clear that when I say things that they know exactly who I'm talking to even though in some cases I haven't zeroed anybody, or singled anybody out. (Male University Ice Hockey Coach)

Competition was used for a different kind of teaching than the practice situation, which utilized deliberate practice in the repeat already learnt skills. Competition provided the coachable moments that were

essential in the teaching of new ideas to players that already had a solid skill base:

- The other ones, where you haven't played well, and you lost, I think that's probably as good a teaching moment as well. If the structure of the thing is such that you can talk to them about it later, then you may do that you may say let's talk about this tomorrow — have a shower, get a bite to eat, get back to the hotel, try to get a good night sleep. Or you may want to dissect the game a little bit right there. Just, once again, so it's clearly in their mind that these were the 2 or 3 areas that we really fell down, that we played below our normal capabilities in those areas tonight — we'll talk about it tomorrow, briefly, but those are the things we have to think about changing. (Male NHL Ice Hockey Head Coach)

Methodological Concerns

Interpreting the Structure

Should the researcher choose to assess the structural organization of the categories of knowledge through the methodology presented in the present research, then the task of interpreting the structure becomes more complex, and the task of summarizing the results in an easy to understand graphical model becomes difficult. The interpretation of the results is confounded first and foremost by the problem of selecting the number of cluster solutions to be analyzed. This seemingly arbitrary process represents the first major breakdown in the inductive nature of the qualitative analysis protocol.

In deciding how many clusters will be interpreted, the researcher is applying a template to the data. The question to be asked is "How serious a violation to the inductive process is this?" At some point in the analysis process, a structure is created from the data. In the traditional methodology, this is accomplished through the process of combining categories until higher-order categories emerge. In the case of Côté's (1993) analysis, the category of Planning Training was constructed through the combination of the "properties" of season plan, evaluating talent, setting individual goals, group dynamics, training rules, gymnast fatigue or minor injuries, prevent injuries, music choice, club goals, social rules, and daily training plan.

To accomplish this process through the present methodology more than one cluster solution should be analyzed. Exactly how many more than one cluster solution is open to interpretation. The present study examined four different cluster solutions and based on that experience, it seemed that at least one more cluster solution, at a higher number of clusters, perhaps 20 or more, would be needed to be done to accurately apply a structure to the data. In selecting multiple cluster solutions, the researcher will be presented with many perspectives on the data at hand,

from which to draw conclusions. With only one cluster solution, the researcher only has one perspective on the data to draw from.

The second problem faced by the researcher in the interpretation of the results was the necessity to perceive the clusters both hierarchically-- in relation to the other clusters in the other cluster solutions, and at the same time, laterally-- in relation to the other clusters in that specific cluster solution. With the selection, in this analysis, of four different cluster solutions, a hierarchical structure is perceived when the solutions are examined in ascending order. Clusters in the two cluster solution are broken down to clusters in the three cluster solution, which, in turn are broken down into clusters of the six cluster solution. On the other hand, at the level of each specific cluster solution, the clusters are perceived as they relate to one another.

In comparing Tables 1 and 2-- the category "competition" of the two cluster solution, to Tables 3, 4 and 5-- the category "competition" of the three cluster solution, the "competition" category of the three cluster solution can be seen as a sub-set of the "competition" category of the two cluster solution. The two categories are not exactly the same, not all of the content labels from "competition" in the two cluster solution were

present in "competition" of the three cluster solution, but they were comparable in content.

At the level of the six cluster solution, the "competition" cluster from the three cluster solution was broken down into the overlapping categories of "practices," "crafting the coach-player environment," "coachable moments in competition" and "between periods." Using a flow-chart model to represent this structure becomes difficult at this level because the overlap between the categories varies to such a great degree. Not only was the same content label included within different categories, it was closer to the center of some clusters than it was to the center of others.

The path for the "preparation" cluster is even more difficult to follow. Tables 1 and 2 indicated that "preparation" of the two cluster solution was broken down to "immediate preparation for competition" and "building a training plan" in the three cluster solution. The overlap that the "competition" cluster exhibited at the level of the six cluster solution was comparable to the overlap between "immediate preparation for competition" and "building a training plan." In the six cluster solution, this overlap became even greater. The original "preparation" cluster was tied

to "goal-setting," "building a team work ethic," "training plan," "evaluation," "pre- and post- game talk," and "team building," all to various extents.

Through the use of multiple, non-hierarchical cluster analyses, a content label that was considered to be in the "competition" cluster of the two cluster solution was not predetermined to remain within the competition cluster for all solutions. The clustering process only examined the relationship between the clusters in that specific solution. Constructing a hierarchy with only one solution would be impossible. The non-hierarchical clustering process does not put cluster one of the six cluster solution above cluster four of that same solution, rather it puts the clusters in relation to one another. The hierarchy emerges when the content labels of cluster 4 of the six cluster solution are traced upwards to the three cluster solution or downwards to the 12 cluster solution.

Basic Level Categorization

Lakoff (1987), drawing on research from cognitive anthropology, linguistics, and philosophy, stated that "categories 'in the middle' of a hierarchy are the most *basic*.. Most knowledge is organized at this level" (P. 56). To reflect this assumption, the present study used content labels as the basis for deriving the category structure, not the "specific level" meaning units.

The process of qualitative analysis is data-driven, proceeding from the bottom up, with the bottom being the smallest unit or idea that makes sense. To reflect the idea that categories of knowledge are organized at the "basic level", content labels reflecting the basic level could be used as the starting point of the process of building the category structure from the data, without violating the data-driven nature of the process. This basic level organization of the knowledge could first be determined through the present methodology, and then the specific content of the categories examined through the process outlined by Côté et. al. (1993).

Implications of a Prototypical Category Structure

How categories are perceived by the researcher will effect what type of categories are generated from the data at hand. Categories can be perceived as having absolute, definable boundaries, with necessary and sufficient conditions for category membership (Lakoff, 1987).

Categories can also be perceived as having prototypical members that are more central to the category than other members, fuzzy boundaries, and a basic level organization of knowledge (Lakoff, 1987).

Cluster three of the 12 cluster solution, "making adjustments in competition" would be an example of the first type of category. The minimal overlap between other categories of knowledge indicated that this

category had fairly set boundaries. From that same cluster solution, cluster five, "the training plan" would be an example of the second type of category. The extensive overlap between the "training plan" and "practice" indicated that the boundary between the two categories of knowledge was fuzzy. This overlap, as seen in Table 16, indicated that some of the content labels from the "training plan" cluster were central to both clusters, to different degrees.

If, according to Lincoln and Guba (1985), a researcher following the naturalistic paradigm believes that "all entities are engaged in a state of mutual simultaneous shaping" (p. 38), then the interaction between entities, in this case, categories of knowledge, as well as their definable boundaries, becomes a phenomenon of interest. The ability to study both the boundaries, through the method presented by Côté et. al. (1993), and the interactional organization through the present methodology, would have merit over studying either one aspect without the other.

In making the assumption that categories are prototypical in nature, and reflecting this assumption in the methodology, the researcher avoids the task of deciding within which category to place the meaning unit. In the traditional method, the researcher must decide which category a particular meaning unit belongs, even if it belongs in two,

three, or more categories. The assumption in prototypical analysis is that everything is going to relate to everything else. There is no need to decide whether "base practice on previous game" belongs in the category "practice" or in the category "immediate preparation for competition." This is accomplished through asking the question "How similar is 'base practice on previous game' to 'cycle of practice - playing in university'?" The content label is compared to all the other content labels in the same way. Clusters of similar content labels, that have different distances to the center of the cluster are created.

This assumption of a "fundamental interconnectedness of all things" or "holistic" perception reflects Lincoln and Guba's (1980) metaphor of the hologram as a model of qualitative analysis. When a hologram is broken, each of the pieces contain the information of the original, thus enabling the piece to still convey the hologram. In the process of prototypical qualitative analysis, category membership is relational - "how much" as opposed to definitional - "where does it go." Through building the structure based on the "basic level" content labels, the difficulty of deciding to which of a possible many categories a meaning unit belongs, is removed.

A further benefit of reflecting a prototypical category structure in the methodology lies in the ability of the analysis to find hierarchical structures, if they exist. By examining various levels of cluster solutions, any hierarchy that was present could emerge. A clustering methodology would not exclude the possibility of different category structures existing within the same data. If different structures are present they would be identified by the cluster analysis. An analysis protocol that would identify both types of categorical structures would have merit over an analysis protocol that would identify only one or the other.

What the Present Methodology Provides the Researcher

The methodology presented takes into consideration both the effects of a prototypical category structure (Lakoff, 1987, Rosch, 1978, 1981), allowing for a classical structure to emerge if needed, and the "basic level" organization of knowledge, to present the researcher with an indication of the structural organization of the data under study. The present methodology would provide the researcher with information on the structural organization of categories of knowledge, in this instance, from the present data on expert ice hockey coaches. Commonalities between the "basic level" categories would be identified, and possible relationships or interactions would be singled out for further investigation.

The researcher could begin the process of assessing the content of the categories, knowing in advance that the category of goal-setting may draw upon elements of the training plan, building a team work ethic, team building and player evaluation. The category of building the team work ethic may draw upon elements of team building and the practice environment, as well as goal-setting. The category making adjustments in competition may not draw on other elements identified.

Pre-game preparation, for both coach and player, may draw upon elements of the coaches' pre-game talk, and the process of making adjustments in competition. The use of a training plan might exhibit great overlap with the dynamics of the practice environment. The concept of player evaluation may be tied into the process of goal-setting, as well as making adjustments in competition. The coaches' pre- and post-game talk might share commonalities with the pre-game preparation of both players and coach, as well as the process of making adjustments in competition. The practice environment might be tied to elements of the training plan, and might involve the building of the team's work ethic. The process of team building, like goal-setting, might involve a combination of elements. Building a team's work ethic, goal-setting, and crafting the coach-player environment may all play a role in the process of team

building. The process of crafting the coach-player environment might share some common elements with building the team work ethic, and making adjustments in competition.

The present methodology makes an attempt to distinguish between the process of building the structural organization of a category, and the process of interpretatively analyzing the content of the category. It is to the "basic level" structural organization generated through the present methodology, that the researcher through the process of interpretational qualitative analysis, would add the content-- the properties, and the dimensions of the categories, as outlined by Côté et. al. (1993). The present methodology should not be interpreted as a replacement for the process of interpretatively working with the data at hand to fill in the properties and the dimensions of the categories of knowledge, as outlined by Côté et. al. (1993). The present methodology only considers the structural organization of categories of knowledge, providing the researcher with an additional perspective on the data at hand, from which to draw on in the interpretation of the relationships between categories.

Finally, as the process of making the multiple similarity judgments between the content labels was not overly time-consuming and easily adaptable to the computer environment, the present methodology could

provide the researcher with the opportunity to have the subjects of the study construct their own categorical organization of the data at hand. Once the "basic level" categories were identified the researcher could return to the subjects and have them make the similarity judgments. The benefits of including the subject in the process of building the categorical structure is potentially great.

Conclusions

The goal of the present research project was not to discredit any one way of seeing the world, or any one method of analysis, rather it was to present a complementary research strategy, "prototypical" qualitative analysis, that takes into consideration both classical and prototypical category structures as an additional analysis tool to be used within the process of interpretational qualitative analysis

The present methodology, philosophically grounded in the prototype theory of category structure, presented a unique way to examine the structure, if not the content of categories in an interpretative qualitative analysis. When used in conjunction with a well orchestrated interpretative analysis approach, like that of Côté (1993), the present methodology could provide insight into the relational properties of the

category structure, allowing the researcher to focus on the content of the categories themselves.

The present methodology reflected certain beliefs about the structure of categories, and their organization. Taking into consideration prototype effects, and “basic level” organization of knowledge, in determining the relational structure of the categories under study. This different methodology presented an alternative perspective on the analysis of qualitative data. Although this perspective might not be congruent with other researchers’ beliefs about category structure, at least the long discarded issue of category structure has been raised. The question “Which methodology should be used?” is not as important as the question “What are your beliefs about the underlying structure of categories, and how do they affect the methodology?” It is this latter question that the present research project has attempted to answer. If no answer is forthcoming from other research projects of similar nature, it is hoped that the question is at least being considered.

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Appendix A

Meaning units used in the analysis, and their Content Labels

base practice on previous game

But in terms of our on-ice thing, I have to react almost to how we played the last couple of games. But they know that. They know if our power play was anemic for 2 games, and we're working on some power play in practice, they know exactly why- and I re-emphasize why. We're working today on power play today because we had 3 critical points in the last 2 games, where we could have put games away, and we didn't on the power play- here's where it broke down, here's what we are going to try to do to work on that today. So that's the way that I tie them into it right there.

base practice on previous game

I think that with the national team you are able to plan a little bit your year because there are several competitions, there is a time that it is easier to taper in your season. At the pro level I think that first of all there is a lot more pressure, every night it is 2 points, and you're judged on every performance, we come back from this trip and we got one point out of a potential 12, it is not received very well even though some of the people that have seen the games will say well the team is working hard so it doesn't look like you are losing, and not working hard, we are working hard.

being the hardest working team

The other one was to try, we wanted to try to develop a work ethic. When we started there, the first year we were there, we weren't very highly skilled, they've got a little bit better, they've since gotten very highly skilled. We wanted to try to be the hardest working team, and of course the work ethic has become very pronounced, in the sense that everybody talks about it now, but then of course, when everybody's doing it, it becomes a question of the degree to which you do it. Everybody works hard, but how hard, what is hard work. That was another goal – to be the hardest working team.

benching players

Sometimes you can take that a little bit further and reinforce if you talk about that when the players know full well that the guy who did it has sat for the last 10 minutes, and has not been on the ice, and especially in circumstances where it might be one of your better players, a guy who you know is going to bounce back right away the next time you throw him out there, and it's actually going to motivate him.

between periods improvement points

Between periods you give the players some time to themselves when they first come in, and you talk to them allot, and you let the players know, and the players become familiar with the routine you want to follow. You give the players some time, and you tell them you're going to give them some time – we're going to come in and talk to you after you've had about 5 minutes to yourselves, we're going to come in and 1 or 2 of the assistants are going to make 2 or 3 points, and then we'll give you one reminder or two reminders. There may be a couple of tactical points that you want to talk about. I think you have to be careful, even though they may see five different things that the team isn't doing well, I don't think that you should mention all five. You should priorities

it and pick out the two most damaging things — if their were five, hopefully their never are five, sometimes you might get that.

between periods improvement points

So I go back in, and I'll give the guys 4 or 5 things to focus on, then I leave with about 4 minutes left to go before the period, that gives them about 2 min. or so to get ready, on their own, to get going, and I come back in with one little message, a very short message, and out we go. And the guy's pretty much know, that's always going to be the same scenario. The message may be different, but it's the same organization to it.

between periods improvement points

When I come in between periods, in a game, I've got to get them ready for the next period, so in my mind, I've got about 3 or 4 minutes that they'll listen to me, and be attentive. But then I've got to give them some time to get ready. To gather they're own thoughts a little bit. To have a little bit of a break from the action. So in my mind I'll get about 3 or 4 minutes in between periods where I can really be effective. So, I can say a couple of things positive, which I try to do- usually at the end. But usually, as a coach, a lot of times, you're delivering improvement points. I call them improvement points.

building a training plan

So I basically got a map of where I want to go before the season starts- all subject to change. Because this is my first year in pro hockey, and whether this is going to work or not, I have to be able to read that. With the Olympic program, after a couple of seasons, I knew this was going to work, this is it, this is a good plan. In working with Cal Botterill, and Dr. Holly Winger, and getting they're input, and there help, it became a very workable plan. I would do it up, and send it to them, and they would say- ya, that would work just fine, here are some suggestions- move that training phase a little longer, shorten this one, whatever it might be. And so now, with the flames, I've got the same kind of thing on the go.

coaches mental preparation

I read a lot of great coaching material, that have given me great ideas. But a lot of things I like, when I started working with Cal Botterill, the idea of rehearsal for athletes, rehearsing situations and reactions to it, and I said- it would make sense for the coach to. So I've gone through that the last 6 or 7 years-bad penalty, bad goal, bad start-how will I react? And I can't always do it, sometimes I loose it. And I'll say- why didn't I deal with it the other way.

coaches mental preparation

I try to mentally rehearse some of the things I have to do. I'll go through, for example in my mind what things are important. I will spend, and I guess what helps me zero in on that are the points that I write down, so in thinking about those things I go through in my mind all the things I think are particularly important about this team, things that I need to get across. Then I try to remind myself in phrasing all of those things, how to

phrase them so they would come out in the most positive manner. Saying this is what we'll do as opposed to saying don't do that. Just trying to make sure that whatever feedback they're getting from me gives them a sense of belief that we can be successful.

coaches personality

The biggest challenge for you when you're young, is you want to emulate somebody. You see somebody, and say- gee I would like to coach like that. That's my kind of coach. Think about it, you might like some of the things he does, but the essence is: coach the way you naturally react, use your own instincts. If you ever try to be somebody you're not, I think you have a real problem with coaching. I'm very instinctive, sometimes I'll get real mad at the players- it's just my instinct telling me it's what I have to do. Sometimes I'm the most understanding guy, you won't believe it. Like Jeckall and Hyde. That's what my instincts tell me. I don't want to be this guy who's totally, always in control, totally, always Mr. Calm. Sometimes I'm hot, sometimes I'm driving those guys, sometimes I'm very quiet. Sometimes I'm very mad, sometimes I'm very supportive.

coaches personality

I think I've got decent people skills, but my personality by nature is a very quiet guy. When I teach, I noticed a great change in my personality, I became more outgoing than I normally am- I'm normally a very quiet guy. I'm generally a very shy person. When I meet people now, and I do very well when I meet them, it's because I'm very practiced at it. It doesn't come natural to me to be outgoing at all.

coaches personality

I think my strengths probably are that I'm organized, I think I understand the game, I think that guys sense that right a way, that he knows what he is talking about. I think I'm demanding, yet I think I'm fair. Probably that's one of the things the guys like the most, I think, about me- they wouldn't say I was a great guy - I don't think, but I think they'll say one thing - If you screw up, and he knows who you are, he'll deal with you.

coaches personality

I don't think there is any magic way to be a coach, whether you should be a motivator or a technician, I think to be a successful coach you have to be yourself and play within your strength but also be willing to learn about other ways to be successful.

coaches pre-game preparation

Dave will spend a lot of time at the rink, he will do some advanced scouting of later games, some coach may decide to go home and have a meal with their wives or family, or maybe have a nap in the afternoon, then come to the game maybe a couple hours, 2/3 hours before, and review what they have to do. There is a pre-scout that is written on paper for the players and you have to prepare that and those kinds of things, it is more in- depth as a head coach, a lot more preparation I think, because

there is going to be your strategy, what you are going to talk about, what you are going to do

coaches pre-game preparation

When I come to the game I basically look at who we are playing that night, with Dave I rotate the defensemen, is there a particular strategy that Dave is going to want to use, so that maybe I try to match a pair of defensemen against a particular line from their team, or whoever he is going to play on the forward line on that particular shift, do I want two specific guys with them.

coaches pre-game preparation

For me the best routine, one of the best routines for a team is if you talk to the players - if you want to talk any kind of a heavy meeting about something, you do that at your pre-game meal, you do that early in the day, or at a pre-game skate. Then after you get to the rink, if you're going to give them some reminders, their might be some 2 or 3 minute reminders, at about 6:00 for a 7:30 game.

coaches pre-game preparation

I try to be rested — I always used to try to have a short nap on the day of the game — usually classes would allow that. You'd go home and have a bite to eat and, especially on the road, I'd almost always have a nap, and with the pros we did the same thing. The players do that, and I found, as a coach, that it was helpful to me too — have a rest, maybe just read, have a bit of a snooze, but get up early enough that you're showered and refreshed and ready to go — energize yourself.

coaches pre-game rituals

If I'm in a situation where I can walk to the rink, I like to walk to the rink. I do like to be there at least an hour ahead of the game, and I like to be alone for 15 - 20 minutes while I put down on paper what I'm going to say to the team — those points that I'm going to make. It's during that time that I'm really, I think, getting myself focused on important things that we have to watch for and that we may need to remind people of, and to make sure that I have the frame of mind that

coaches pre-game rituals

So I do a lot of things, like I have a daily run- I do it every day. On game day that run is very important to me because it is my quiet time to think- no phones, nothing, just me, and maybe my dog- because he doesn't talk, he just runs, and out we go. That's great.

coaches pre-game rituals

I have a pretty set schedule, whether it be on the road, or at home. It's not superstition based, so it can change, and I can react to it- no problem. But I do have a group of things I like to do- I like to run, get my run in early in the morning, on a game day, we have our pre-game skate, usually then I'll go home, and then just review a tape of the team that we are going to play, a short little tape. I come to the office about 4 hours

before the game, go over my game notes, go over my scouting report on them. That's what I do. It can change.

communicating with players

That's the biggest, toughest part of coaching. You're delivering information players don't want to hear. Sometimes people say you're not a good communicator and I argue "no" - I'm a very good communicator, it's just that I'm not telling you what you want to hear. That's why I'm not a good communicator.

communicating with players

One of the things that I didn't get to be careful about is talking to the players too much, because eventually if it becomes a consistent pattern then I think especially if it's a little too long, then you get turned out. That was one of my early faults as a coach, which I had pointed out to me by assistants at different times, and by players. We always, well going back at different times, we did a post-season evaluation, an anonymous evaluation by the players, different categories, how they felt about the season. Those were very good. One of the things that was a reminder in my coaching career was that I sometimes got into too much detail talking about things on the ice in particular - players don't mind so much off the ice, but it can be a problem off the ice too if you do it in the dressing room. I've been around coaches that they go, talk a little bit too long. So one of the things that I eventually started doing because of trying to minimize the talking was to put these points up - key reminders, they were key reminders for this weekend series. I put it up on the board in the dressing room, and I asked the players, I said I'd like you to make sure you check the reminder list, as you're dressing, or whatever, any time at their leisure.

communicating with players

I read it, I read the game, I read my athletes, what do they need that night?
.. Sometimes I read it wrong, the more I do this the more I realize, I'm pretty accurate in what I'm doing. That's to me, what the key to coaching is. Being able to find those coachable moments, and use your own instincts, and let it happen. But be smart enough always to evaluate yourself. And be honest with yourself. Cause I've made mistakes. Sometimes I go in and I say- gees, why did I do that? maybe I should have been more supportive, maybe they didn't need that tonight. So, the next day, I'll go back to the guys and say- gees, I was hard on you guys last night, but I got to tell you, guys, I'm hard on you because I think you're a great team. I know how good you can be, and so, I'm going to be that way sometimes. I'm not going to accept that we are going to have mediocre nights. It's only a complement to you that I do that. Because I recognize how good you can be. When I do that, they all go- Oh, he's a great guy. We love the old Kinger. The night before they thought you were an ass, but...

communicating with players

I always tell a guy- you're not dressed for these reasons, but they want to get reinforced with Guy. I have to deliver a lot of news sometimes guys don't like. When you've got a roster of 23 or 24 players, and 18 or 19 can play, there's 4 or 5 guys that get bad

news every day. They're not going to play, or they're not going to dress. Somebody has to deliver that news, and I don't think that a lot of athletes can sometimes separate what you're saying from your feelings. They think I don't like them. "I'm not dressing- he doesn't like me. I'm not dressed tonight, that's 2 nights in a row, he doesn't like me." I don't dislike him. As a player maybe I dislike the way they play. I like him as a person. But they don't fit in that particular night against that opponent, whoever it might be.

communicating with players

I think that you have to be very much prepared to hear input from the people involved, and certainly with our team here at Nate when you are going over the course of the season I think its a little simpler to do that, but we've always tried to give the athletes as much say as possible, and to try and make sure that they understood that they could speak openly to the coaching staff, but also make them understand that we may not always agree, and that they may have to accept sometimes that we don't agree — just like sometimes we don't agree with everything they do but, their are things about them that we have to accept too.

creating a flow to practice

That flow would give the athlete the sense that it did make some sense to him. That, I think, is part of what I try to do as a coach. I try to theme my practices, I try to make sure that some days I have practices that have many different aspects, it might be defensive zone, coverage, power play, some time on other aspects. Some days it might be a defensive day, it might be an offensive day, it might be a penalty killing day, it might be a power play day. I always find time within my planning and my schedule for practices to theme some practices so that you get a real intense amount of time on one area of the game. I think that's the time you get a lot accomplished. If it's 10 minutes here one practice, and then in another 2 days, its 10 more minutes of penalty killing, I think sometimes the guys can't see where it flows together. Those are the kind of things, to me, that make a lot of sense. Being well organized, with a theme to it, making sure the athlete senses some progression to it. Those are things, in terms of my planning, in terms of coaching on the bench there's other things.

creating the right coach-layer environment

I really haven't thought about my overall — this might be one of my first cathartic talks about some of these things. But I have looked back, every once in a while, and said to myself, I was maybe a little more distant, I tried to get a little bit closer to the players, in some ways, and I felt I've could. I think maybe that's part of maturing as a coach, and having a little more of an age spread, and you feel more comfortable about some of those things. cycle of playing - practicing in university

In the pro game it's a little more difficult because of your disruptive schedule. Certain rival teams, there's probably a natural build up that occurs. You encourage it by talking, meetings about teams, the importance of games. In university hockey, once again, we've always operated on the premise, and I think most teams do now, but I'm not sure they did then. I don't know if it created pressure, if it did, it was a good kind of

pressure – the shortness of the university schedule made almost every game like a playoff game – we didn't put it that way, but when we talked about it, we did put it that way at the beginning of the season, but we didn't refer to that week by week. But you really emphasized the importance of building to the weekend games and the importance of them.

cycle of playing - practicing in university

I think there's a natural build up that occurs in University because you structure your practice week. What we did, and I think a lot of teams did this – you'd have a certain phase that you'd work on at certain times. As we built through the week, we would have a hard work day on Tuesday, a lighter work day on Monday, work in terms of effort demanding things. Then maybe your heaviest work day on Tuesday, and quite heavy work on Wednesday as well. Then on Thursday you would have a quite a bit lighter practice, mostly concentrated on specialty teams. I think a lot of University teams have a four day practice week. There's sort of a natural build-up, and you do certain things, and it's a little lighter and a little more energy building on Thursday, in preparation for the game.

cycle of playing - practicing in university

And also I think that you use, and again college hockey is kind of an ideal setting that way, you have usually 4 practices or 5 practices and 2 games. You use the week to build towards those games so by the time you're done the week of practices you're ready to explode into those games. Maybe at the start of the season a little bit less of that where you would sacrifice a little bit of your practice on the weekend to accomplish more during the week. But clearly at the end of the season you're not trying to take too much out of yourself during the practice week so that you're prepared to be at your best on the weekend.

dealing with players between periods

I'd like to think that almost everything I do, at the start of the game, in-between periods, is pre-planned, is done with a specific idea in mind, even when I go in and blow up at the team. Generally speaking, I like that to be a staged event – I may be feeling that way anyway but I want it to be in control enough that the right things are said, not the wrong things. A lot of times I'll tell the assistant coaches, this is what's going to happen, I'm going to blow up, or I'm going to say something to these particular individuals, or I'm going to focus on these particular individuals, not necessarily saying their names. My players have always made it loud and clear that when I say things that they know exactly who I'm talking to even though in some cases I haven't zeroed anybody, or singled anybody out.

dealing with players between periods

Approach things from that perspective, and also it is a time to reflect with the coaches, and that part of things has to happen quickly, I have to, if I'm upset I have got to vent some of my frustration sometimes, usually behind closed doors. Then, you have to have a fairly short pointed idea that you are going to get across in the dressing room.

dealing with players between periods

There's been some specific circumstances that have occurred while I have been in coaching, where you go into an in-between periods where you know the game's on the line, and you try to do some things motivationally that will maybe give you that lift that gets you over the hump. Sometimes that might be reminding them, like when we have got to national championship games and we're going into the third period, we had a great series that we played in Toronto against Humber college, we played a best of 3 - the first game was 2 - 1 in triple overtime, the second game was 2 - 1 in regulation time, but we went into the third period tied 0 - 0, and the final game was 4 - 3 in double overtime.

dealing with players between periods

I think back to the world junior at Christmas time, I really felt like it was a little bit of a shot in the dark. We were in terrible trouble against Finland in the fourth game of the tournament - we had been out shot quite badly over two periods and we were tired, mentally and physically, we had three tough, tough games, and we were playing our fourth one in five days and the jump just wasn't there, and I talked to the assistant coaches, and I said what are we going to do to get them through the third period, and they didn't know for sure. I'd thought about, I'd actually talked to them when we got to the rink, I wished I had brought one of my gold medals, because I think this is going to be a pretty tough game today if we get to the third period, or we get to some point in the game where we think we're losing it, I'd like to have something physical to put out there and show them - boy's, this is what we're going for. Of course, I hadn't brought my other gold medals with me, but I did have one of the championship rings, so I had the doctor clear of the table - I walked in, set my ring down on the table, and then walked out. Let them sit there and wonder what the heck is he doing, and of course they would have looked at the ring. Then I came back in and just before we went out for the third period, without talking about anything technical at all, I just said, guys, I honestly believe this period right here, right now, that we're going to play will determine whether we're going to have those rings for this year, and I think it's important that you think about it that way, so dig down and get that little bit extra, and get that charge that you're going to need to go out here, because this could be the period that decides the gold medal. I left it at that, and of course, I didn't think I'd done a terrifically outstanding job with that, but with the feedback and the media it was really focused on. Clearly for some players it did make a difference, we did get some players who got more jump in the third period, but we still hung on, it was still a tough, tough period.

dealing with players between periods

Sometimes you might get into specific small groups to talk about things or well use in-between periods to send in an assistant coach ahead of time to talk to the players individually. For example; finish checks - turnovers, we get feedback through our stats at the end of the period. In some cases it's assistant coaches, in some cases it's players, that aren't dressed. If we're following the finished check - turnovers we know

that some guy hasn't finished a check yet this game, we might have somebody go remind him of that, or we might choose to go the other way and remind the whole team that we have been watching how so-and-so is playing today, outstanding game, and here's why, he's finished 6 checks already and we're going into the third period, and he hasn't turned the puck over once, he's well above what he needs to contribute as an individual. If he gets three more finished checks this period, he is going to double what his contribution should be. If we have everybody doing that, it will be well within what we want to accomplish.

dealing with players between periods

Sometimes you might want to come in and give them a little bit more time to themselves, and spend a little less time talking to them, and not say anything about anything tactical, because maybe you want to stress the fact that our problems today are not tactical, they're emotional or attitudinal. I think it's good to have something they're a bit familiar with. It's not standard because of you're really upset at some things, it's an attitudinal thing that you're really upset with you may come right into the dressing room at the moment that they come in, and get their attention right from the start, and give them hell, or whatever, and just leave them, and give them the rest of the time to themselves to think about it.

dealing with players between periods

I can remember in-between periods there reminding players that particularly in the last game that everything we have been doing all year long in practice had prepared us for where we were right now. One of the things, and a player mentioned it to me so it's really stuck out in my mind, during the course of the year we talked in practice all the time about being focused in shooting drills, that in fact our season, and it happens in hockey, it can come down to one shot. One shot decides the whole season, so don't forget the fact that it can happen. So every time you shoot in practice, maybe that will help you stay more focused. We got into overtime in the final game, and I said, we've been preparing for that, do you remember that we talked about the idea that it might come down to one shot, hear it is guys – we've practiced for that, I don't know if they have, so here we go. After we scored the winning goal I was on the ice hugging the guy who scored the goal, and he said, I can remember the day you told me that in practice, that it would come down to one shot. I don't know that I would have ever remembered that, but obviously it was something that had an impact on the player. Those are clearly things that I think you try to bring up in-between periods, especially in games where it's close, you try to make sure that your players recognize that they have done the things that are necessary to allow them to be successful in that particular circumstance.

dealing with players fairly

There is no doubt that you look at it and say well, this isn't my top priced player, usually they are going to be their most skillful players. I think, the biggest challenge for the coach is to bring that chemistry within the team. I think players within the team always respect a million dollar players as long as he gives them good services, same thing as

a coach. If I am getting the best out of I can of that million dollar player, chances are it is going to allow us to have success. I have to convince the guys who are making only \$200,000 feel that there is a certain contribution to the success of that team, and if you can blend it together...

dealing with players fairly

In the university situation we used to kind of blur, we'd try to avoid this distinction to begin with, and kind of spread the talent, and we played four lines almost an equal amount of time. Players accepted that — when we tried to go to a high intensity sort of thing, and I think we were one of the first, another innovation that we started, I think — teams always used to play, say a minute and a half sometimes two minute shifts, for their lines. We eventually got down to working at about a 45 to 50 second shift at as high an intensity as we could, we kept changing, and of course if you do that then four lines is great, and everybody gets their share.

dealing with players fairly

If a guy deserves to be given some static regardless of who he is, I do it. Right now with the flames, were going through that with a few players here. They're not used to getting this kind of feedback. And the young players, they love it, because they're saying, gee, no one's immune to this guy, he'll take anybody on. So that's what I try to do. There's nothing too magic about it.

dealing with players fairly

I think I've always been very conscious of trying to avoid double standards on my team. That's the first, and quickest way for you to loose everybody. To allow double standards to start to reinforce within your team. You can make mistakes, you can show lack of effort, and I don't deal with it because you're the best player on the team, you're the most experienced guy, yet some other inexperienced rookie is getting treated by a different set of rules. I've avoided that. Which causes you difficulty, because sometimes your veteran players on any team, be it a high school boys team or whatever, automatically expect that they're going to get more playing time, a little bit more status in the group, because they have been there longer. I don't deal that way- I deal with performance, not your seniority. Your young guys, your rookies, they love it, cause they can sense that they have a fair shot here. The guys who are your experienced guys, they're the ones who are a little ancy, cause they're saying I've got really not much extra status here. I should have. But that's the one thing I've never liked to do, is double standards.

dealing with players fairly

I think in the college system, what we've done here most of the time, and I think it's been one of the reasons for our success, and Bill still does it — he believes in it strongly, we blur the thing right off the bat. We try to balance the lines and the defence pairs so that really, except for special team situations where you might bring some guys together. The thing is sort of blurred initially, so that everybody has got an opportunity to get some recognition, in the sense that we tried to go with 4 lines almost

always through our more successful years, we were fortunate, and have always been quite fortunate in having quite a bit of talent — but talent in a different respect, like checking talent or scoring talent.

dealing with players fairly

I think that's a distinction — I said to this guy, I think to be successful, you've got that three tier thing, and I think to be successful, you've got to blur. Everybody knows that there's some degree of it there, but you've got to do everything you can to blur it. I think you can blur it by talking about it to begin with, and saying that we want to be different, we want to have this team different. The guy that gets the 40 goals has got to recognize, and publicly acknowledge and be really supportive of the guy that gets 5 goals, but gets the puck for him.

dealing with players fairly

In terms of practicing to practice or practicing to compete, the competition at the University is always there at the end of the week, it's kind of the carrot, it's the thing that the players work hard for. I think another thing we always did here too is that we always had about 24 players and we always tried to emphasize that we were going to be as far as we possibly could be in terms of deciding who was going to earn the right to play, or possibly play a bit more. With our team everybody played just about an equal amount anyway, players knew that if they were going to dress, they were going to get an equal opportunity to play. I think that helped us, I think it helped our spirit.

dealing with players perceptions

The flip side of that is the players who are sitting there in the corner thinking, that's an interesting statement the coach is making, but it doesn't apply to me, it doesn't apply to me. Or, you go the old fashioned route, and you talk about specific things and you grab the guy, and you say this is you, this applies to you. As a coach, as a humanist coach, well not a complete humanist but closer to that end of the scale you like to think that you could make the point so that everybody internalizes it, and eventually that's what you have to say — that you want each player to look and listen very carefully to what you are saying and that it does apply, and it does apply to everybody — some to more degrees than others, but this is a concept, this is a thing that we haven't been doing well, in that period or whatever, and we have to change, we have to make it more effective, or productive, so eventually you get it across that way.

dealing with players perceptions

One of the things I've found during my coaching career is the perception of different players, and this applies at university as well, applies anywhere I guess, any time you go in a room — if you go in a room and you make general comments about things that the team are not doing well — not general comments, specific things that you're not doing well as a team, but as the 20 players are thinking about, which players internalize that and say, yeah, that's me, I have to do better in that regard.

dealing with players perceptions

It depends, when you're sitting in a room with 24 people, when you ask them to say that we want to work hard, what John Salmela thinks is hard work and what Clare Drake thinks is hard work may be different, or what Dale Howerchuck thinks is hard work, and what Mike Eagles thinks is hard work, almost may come from two different worlds. You have to be fairly definitive when you talk about it. My feeling is that you describe the parameters of hard work. You could use examples, and say what is hard work.

dealing with winning and losing

I think one of the things I've been able to do as a coach is make players see my desire to win, and I think part of what brings that across sometimes is what I've said at the end of games as opposed to anything I've done leading up to or during. They see my emotion after the games, sometimes I'll let them.

dealing with winning and losing

So you can analyze the win very quickly, whether it was a great win, or just a win, or you were lucky. So that losing is still very tough. I'm much better with losing now too, because I'm able now to analyze why we lost. When I first started coaching, I always thought we lost because we didn't work hard enough. And now, I'm smart enough to realize that sometimes we lose because we worked too hard, not smart. We beat ourselves through careless penalties.

dealing with winning and losing

When we lose, it depends how you lost. It depends how you lost. If you lost with good, honest effort, the other team beat you, I'm very supportive of the players. When we lose because I think our effort is not there, then that's when I deal with it, and I'm very demanding in those circumstances. If we beat ourselves, I'm very demanding. By that, I mean if we take a lot of penalties, or, make a lot of big mental mistakes. Sometimes if you lose, it's one guy, it's two guys, that make big individual mistakes. They were trying. Hey, I'm going to forgive everybody, that's not a problem. I'm very good when we lose, in terms of reading it correctly. Should I give them some heat, or should I be very supportive. Winning, I usually let them celebrate the win. They've got to get some joy from the win. The next day I'll put it back in perspective for them, with video, or with a meeting.

different coaching styles

But I'm always leery of guys that have got so many ideas along the way - I think you have to respect experience, I've always believed in that. To respect experience, as long as you know the experience is a guy who has got a pretty proven record. I've coached against guys who have no formal education, aren't particularly well organized, don't have a great hockey knowledge, but they're great coaches. Their strength might be just in handling people, just in handling players, just in the motivation aspect- they beat you. Their teams are better than yours are.

different coaching styles

I don't think there is any definite ways to be a good coach, like if you were to say to be a good coach you have to go through what Dave has gone through and you have to have all his knowledge to be able to be a successful coach. I don't think that comes true when it gets to the NHL. Basically what you want is through either some good teaching process or motivating process that will allow your team to play to the best of its ability, recognizing who are your best players and I think everybody once you reach the NHL, guys can do that, but it is hard to get them to play to the best of their ability and in a way that is going to allow them some success, whether through a particular system.

different coaching styles

There are different definitions, sometimes good coaches are excellent to teach, practice and everything else, then they get behind the bench it is a different story, they have a certain philosophy that may not be what is going to give them the success of their team. You have others that there is no time spent preparing practices, they could just be killing time or get a sweat and they will still find a way have success because he will be a very good bench management type of man, he knows how to put strategies together, and how to get the best out of the players to play against that particular team whether it is to play physical or to have a strategy to allow his team to have success.

different coaching styles

So I've learned that everybody's got there area of expertise, what you have got to know is what is your best area of expertise, try to cover all the bases, try to have some skills in all the areas. The thing I find with coaching and it's the hardest thing to do, is you can't be all things to all people. I wish I was the greatest motivator, and best organizer, and most knowledgeable tactician, but I can't. So what I do is, when I hire staff, I look for complementary people, that offset what I can't do

different coaching styles

Having dealt with so many coaches you really realize that there is no one way to coach. I've dealt with so many people with different personalities, different styles of play they prefer, different types of players they prefer, you name it, different methods of coaching, everything. The key is what they do, and what they believe in, they do well. And their players, for whatever reasons, buy it. It's the way they sell it. Now, they don't actively sell it, but it's just the way they teach it, the way they live it, that seems to influence the players to think- this is going to be good, this is going to work. It just amazes me how many different types of styles of coaching are successful.

different coaching styles

There is the teaching, and that's your skills as a teacher. And there are always going to be certain levels of teachers, there are probably math teachers that are very good, and others that are barley there. They probably all aspire to be very good, but some are very good for a lot of reasons, there enthusiasm, there salesmanship, there knowledge and there rapport with the people they work with. A lot of little things, sometimes, not just one, that makes them better than the other guy.

different coaching styles

That is the challenge of the coach, a motivator could come to a team that has had a system for the last 3 or 4 years implemented by somebody else and they have done it for so long the motivator may not even have to review anything, they will execute it through leadership within their team, but he may be an excellent motivator and a good bench management coach.

effects of a brawl on team unity

That's some of the things we've done, and then I think we've tried to do things that team- build. I guy I coached with a long time ago, now coaching with Minnesota in the NHL, said to me, you know, there's nothing like a good brawl in hockey to bring a team together, and really what that means when you think about it is that a guy has to go to bat for another guy, he's got to show up and help his friend out, and so obviously in college hockey, going around creating brawls is not the best way to do team building, but if you can create a circumstance that has those kind of things happening in another sense, then, in fact, you can accomplish some of that.

effects of a brawl on team unity

It does make sense, if anybody who has been through a brawl together, those people become very close, and any team that's been through a tough playoff and had some success, that generally is a reflection of those people being a lot closer than they ever were before — some of my closest friends in life are players that I played with when we won the centennial cup, that was a long road, and a lot of those people today remain my day to day friends. I notice it with our teams here, that the most successful teams are the ones that have had to have been through the tough battles to accomplish something.

effects of bonding on team building

Those people still remain close. One of the secrets is to try to develop some of that as early as you can in the season, to get those people communication to one another, to get them sharing, to get them to open up, and let them see one another in a light that's different than just playing hockey — see one another as students, see one another as people. Over the last few years we have tried to be more focused on things that we could do or things that we could contribute that would help team build.

evaluating coaches performance during competition

Sometimes I get mad at myself because I gave a guy too many chances. I should have bottom lined with that guy quicker - I didn't. I was too lenient, I've told the guy too many times, and he did it again tonight, and it cost a goal, and it cost us the game. We lost the other night in Minnesota- I had the wrong guy on the ice at the wrong time. Trying to give him one more chance- and it didn't work. So there you go, you can be too good to, too nice, but that's part of coaching, you're not always right.

feedback from assistant coaches between periods

Between periods is a key time. When we leave the bench, I go in for one quick second and say- guys, have a good rest, lots of good things happening out there, and then I leave them. I go back with the three coaches, and we meet. And I say- what are some key things you want to talk about. I'll say- hear guys, here's what I've got in my game notes, and I'll say, "Jamie, what do you think?" and he will say, ya, mention this one, it's the most important one in my mind. I'll say "Guy, what do you think?" He'll say- yep, that's going to be good.

feedback from assistant coaches between periods

I usually like to have a little bit of feedback from the assistant coaches I work with just prior to talking to the team to make sure I get their thoughts on what they might think would be important to say to the team that particular day at the start of the game, and then the same thing in-between periods, it's almost like a quick brain storming session at the end of the period where I try to get the assistant coaches together with me and let them give some feedback.

feedback from assistant coaches between periods

Between periods basically we will exchange the things that we have seen during the period, we will have Jamie and Slovic coming down from upstairs giving us their views of how it looks from upstairs. Again part of my job will be to, depending, you know if I sense that they need to be – let's get going here boys, and be vocal, so that we try to wake them up more, or just let them be, see if tonight the focus is there, there is not really a whole lot to do motivationally, you could just let them go on the bench, it is the same thing.

feedback from assistant coaches between periods

Usually at that time too I'll also use them as a venting tool – if I'm not a very happy guy, a lot of times I'll give them the shit that I'd actually like to give to the players at that particular time or maybe an individual player – I'll get out what I have to get out so that when I go into the dressing room, I go back in, in control.

finding coachable moments

I think it's a matter of cacheable moments in practice and games, when you find things that you think are really instrumental. One thing I do, I think well as a coach, I think I use video very well. To illustrate, and to teach, to correct, and that emphasizes, or reinforces what I do on the ice. I think it's those types of things.

focusing on the game during competition

I've always found myself much better at staying focused in games where I feel that we're very closely matched and that I've got to be there for the team – I've found that my weakest moments as a coach are in games where my expectations are that we should win, and we should win with a fair degree of control. I'm much more likely to get angry, to do things that are not nearly as positive under those circumstances than I would in a game that's very close and tight, or a game where we're maybe overmatched, where really we went into the game thinking we're the underdog.

focusing on the game during competition

Generally I find my loss of focus is performance related, to our team, it's usually not a loss of focus due to bad refereeing or interference by spectators, or anything other than our team not living up to my expectations of our team, generally in circumstances where I think we should do well. An example of that would be in the World Junior Championships when we played the US, when we played Sweden, we played Russia, when we played Finland, all those games I expected us to be in tough, and it was quite easy to stay focused. Then we got into the game with Germany and then Japan and I had a much tougher time keeping control in those two games because my expectations were right from the start that we were going to win, I didn't think that there was any chance that those two teams could beat us. When our performance wasn't as good as it should, it started to bother me, I guess the important thing that I had to remind myself as a coach was that if I'm thinking that way, why wouldn't the players also be thinking that way. Clearly that's going to detract from their performance so I better stay in control here, try to remind them, but...

focusing on the game during competition

I think you really have to be – energized is not the right word, it's part of the word, but you really have to be very much with it, very attentive to what's going on, and not just watching the game and enjoying. You have got to be watching it from a bit of an analytical standpoint because you have to try and make decisions at the end of the period about things that you are going to try and adjust.

focusing on your own team, not the opposition

One of the things, one of the philosophies that we've had here, which may sort of respond to the question, is that we've tried to talk to the players in terms of becoming the best that we can be, and trying to develop our strengths to the maximum, and not be overly concerned with scouting reports of other teams. It's a little more important in professional hockey, I think. Professional teams could learn, and probably many of them have learned too, and I know George took this approach this year with San Jose, and I think, maybe when you're a little less talented, you're trying to maximize your own potential within the players you have, and you're trying to be as good as you can be at the different things. I know there's a difference between focusing too much on what the other team does well and focusing on what you can do well, and let the chips fall where they may. Focus on your own team – I think most of the good teams do that.

gaining the confidence of the players

I think it's important to listen to your players, and I hope they always feel they can speak to you and talk to you. I don't want them to debate a lot - too many better idea people. I tell guys, I want your ideas, and I'll listen to you, and I do, but if the same guy keeps coming up with idea after idea, sometimes I'll sit down and I'll say, hold it now, we got enough ideas here, why don't you try to work a few of these, make these work..

We'll get to your ideas a little later, because maybe they can stem off or work off what we do here.

gaining the confidence of the players

I thought I would treat them a lot differently, but I never think about the money they make, I just think about them as players, and their performance. There is a little difference, though, because I've found that the pro player actually is almost a little more fragile than a young athlete. A young athlete is just thirsting for knowledge. You give some things and he'll take it, he'll accept it. The pro sometimes before acceptance, there almost a point where you feel like you've insulted them. You've insulted, not their integrity, but their skill.

gaining the confidence of the players

At times I find them a little bit different to work with. I haven't changed very much in terms of dealing with the players. I thought a lot about that all summer long, when I made the change. I thought- here's what I do, and I actually sat down and on a lot of my runs, or when I was canoeing, and I thought about what do I do well, why do I do it well how will that change now, with different athletes, and am I going to be aware of those things, and conscious of those things.

gaining the confidence of the players

So I always listen to others, but I'm smart enough now to say- I've listened, but I don't agree, but I've listened to the guy. He feels good because he's said something, but I just register it, and say- hey, I'm from Missouri on that one, you gotta show me. But that's with confidence, when you're young you'll listen to so many people- boy you'll confuse your team. So you have got to be smart enough to listen, sometimes smart enough not to listen.

gaining the confidence of the players

I don't think you can command respect and instantly get it. I think if you are organized, and if you are thorough, and if you have got some basic knowledge, and the guys sense that those things are there, they're going to give you a chance. There going to open the door and say- this guy's got something on the ball here, lets give the guy a chance. So those things have to be there.

gaining the confidence of the players

But it is tougher at the pro level in some ways because there is, right now there are a lot of people making a lot of money, it is not just one or two. Maybe 50% of your team is making big salaries and that is something as a coach, you have to make those people work, because if it doesn't work they won't be the ones gone, it will be you

gaining the confidence of the players

That was a good way to do it. I think I gave the guys a certain amount of comfort, not trying to change a lot of things, I didn't come in here to change a whole lot of things. I said- here's things I think you guys do very well, I like your power play, were not going

to change a thing. We're just going to do it better. I like this part of your game, were going to keep it the same. Here's some areas guys, that I saw you play for the last 4 or 5 years that I think need a lot of work. We're going to change those things. I went in the season giving a lot of thought, and that was the key.

gaining the confidence of the players

You coach a pro level in NHL, and you have million dollar people, half a million dollar people, which is usually quite a bit more money than the coach, you have to make it work, your job is to make it work the best way you can, and hopefully you can get the dedication of those players to work in the direction that you think is going to make this team successful.

gaining the confidence of the players

And I thought a lot about it, and when I started out this season I said O.K., I'm going to start out with these guys, and I'm going to be very fair, which I think I always am. But I'm going to be a good listener here to start out with, and I'm going to try very much to be a guy who is aware, always very aware of what there needs are, where are they. I am trying to be very positive here, and be very receptive to some feedback from them, and put them in a little bit of a comfort zone, and then slowly work myself into a situation where things are going the way I had hoped they would go.

getting the best out of everybody

I think that is the challenge of the coach, to be able to get the best out of everybody, but to know what you can bring to the table. I have a very short time with the national junior team to identify that. With your team, if you are coaching NHL, or you have your own team, you have got more time, you have got training camp, you have got other times that allow you to learn about your people, and what makes a good team is your judgment and getting rid of the bad apples, and sometimes you may have to keep a bad apple on your team because he brings something to the success of your team, but I think you have to have, the tree has to be more good apples, very few bad apples, but if you have a very skillful team and more bad apples I am not sure you are going to have a lot of success.

getting the best out of everybody

When I first started coaching in junior hockey I'm not sure I knew what it was, as a team, except that you have got your good players, you have got your bad players, or you have got your good players, your skillful players, and your lesser skillful players, and it is to combine both of them into the team and get the maximum of your skillful players, and the maximum of your none skillful players, and a lot of it evolves on ice time. There has to be a chemistry there, you have to make your skillful players feel their contribution. That evolves into a lot of ice time, because not only the better players play more, but also those ones who aren't as skillful, but who sometimes bring a lot to the success of your team because of the role they have to play. The chemistry, the combination of your talent, is your team.

getting the best out of everybody

Maybe built more of a team feeling — I think the good teams end up doing that, of course when the talent level goes deeper than you can see, a team like Pittsburgh — I'm sure they use three lines all the time. Some pro teams get down to two lines in the crunch, but the grinding schedule makes them play three, but I think you'd be better off playing four.

getting the most from your players in practice

I became a strong believer that practice time is very important, and Dave has always made it a point that you didn't step on the ice unless you were going to make the team better, and at the pro level sometimes it is very difficult because there is so much traveling, you have to put that aside, and you have to be selective about when you are going to get maximum of your players for that practice.

goal setting

We get players coming in and we have them lay out their goals for the season — a lot of them, at the start of the season, they really don't have a clear picture of what they're getting into, and you can't create that until you've been through it for a little while — they may put down 14 goals, 14 assists, for 28 points in 24 games. Well, we get half way through the season, at Christmas, we've played 12 league games, and they've got 4 goals and 4 assists. Obviously to reach the goal they initially set is not realistic, so we give them a chance to re-focus, and by the time we get into the second half, we can say that in order to win we are going to need X number of goals per game. That multiplied by 12 is X number of goals, now you said you're going to contribute 4, you said you are going to contribute 5, if we sit down in a room and total what everybody is going to contribute. If it doesn't reach the number we're going to need to be successful, then we know we have got a problem — usually that is not a problem, usually we have way more. So if everybody does what they say they can, we're going to be O.K.

goal setting

With our team here at Nate, we've got it down to talking about numbers with regards to certain things that happen in a game, for example; turnovers, through keeping records over the years, we feel that if we can keep the number of turnovers in the game to 30 or less our chances of success grow dramatically. Then if we can combine that with 90 finished checks, it shoots up by leaps and bounds, in fact, in my entire time coaching at Nate, we have never lost a game where we had 90 finished checks, and less than 30 turnovers. We outline some things like that and then, using things as an example, we can break that down, we can say we've got 18 skaters, 18 divided into 90 is 5 finished checks each, that's less than 2 finished checks per. period for each player. 18 goes into 30 one point whatever and so each of us has one and a half turnovers that we can make, if we start to make more than that we're going to start to run above our numbers. It gives them, I guess, a clear picture of what they have to do in that part of the game, that's only part of it but now we zero in on it.

goal setting

Over the years you develop a number of coaching goals that you want to reach, in the sense that you want to develop your specialty teams to a high degree, that sort of thing, and be sound in your forecheching pattern and that type of thing. You have that as an overall thing. I have never segmented, I have never drawn a complete seasonal segment plan, but I have, in terms of a particular month that I want to do something in. We've almost always, not in this league yet, I think, when I was coaching actively, and I haven't been now for 2 years, I've been on the fringe helping things.

goal setting

In Winnipeg we had three fairly dimple team goals, one was to be very supportive of each other — I was trying to do the blurring thing. We talked about trying to recognize the fact that we have individual differences and their may be a person even in the dressing room that we're not enamored of, for whatever reason, but you've got to put those things aside in terms of what we are trying to accomplish as a team.

goal setting

I'd say, starting about 11 or 12 years ago we started working with doing some pretty solid things on goal setting, and a lot of it initially came through the stuff that Cal Botterill had done on the commitment motivation. We took that concept, which I think is a fabulous concept, and worked it, set it up in a way that we thought would be most appropriate for our team. We've always had a number of goal setting sessions in which we start out with trying to arrive at 4 or 5 team goals, and then after we have got team goals established through this consensus method of discussion, and leadership from the coaches, and then we work with individuals. We did a little bit of that, I think it's a great thing — I know a lot of professional teams that are doing it now too — I did some with Winnipeg, and the players were quite accepting of it.

goal setting

I think what you need to do is identify priorities in terms of things that you must accomplish from a training standpoint — what are our most important skills, once I've established those priorities, how much time do I have to try and work with those particular areas, given the time I have, what things can I get done. Keeping that in mind then I can start to work on the season, if I know roughly, if I'm looking at a whole season, if I know roughly I need to spend about 30% of my time on individual skills, then as I lay out practices week to week I can follow and evaluate whether in fact we've got that 30% spent there. If I have to spend 30% of my time on team play concepts, have I fit that 30% in, and in fitting that 30% in have I given the 10% of that to play in the offensive zone, 10% of that to play in the defensive zone, 10% of that to play in the neutral zone, if that's how I see team play being broken down. I think that if you have evaluated how important the special teams are than you can, you know if they become priority, and you need to spend X amount of time on them and you can certainly follow what you do in practices if you keep written plan, and say, gees I have it, we have it.

goal setting

We've always used some goal setting sheets and I guess we've always had a plan where the first half of the season was much less focused than the second half. What we did was we gave the players a half a year to feel their own way. We set some goals early in the year, for example: goals and assists, we'd have come and I think in our setting we get a lot of turnover of players, because we're a 2 year institute, as opposed to Universities, where you might have players for 4 or 5 years.

importance of coaches preparation

I think for a coach, there is a lot of preparation for the coach. As coaches we do a lot of preparation for our players, we sometimes forget to prepare for our coach- for yourself. And I think that's the biggest thing I've learned, in the last 5 or 6 years of my coaching, is that there is a dimension for me that I never realized before was there.

importance of coaches preparation

When I had to be the interim coach for a month last year, I think the preparation is more in-depth, you come to your morning, you want to make sure you do the right things to prepare your team, mentally and physically, now whether you skate, or not skate, do you want to have your meetings in the morning, do you want to show video about your previous performance or the team that you are going to play against that night. Then there is the media that you are going to have to talk to after practice, there is now what is your schedule for you to be at the top of your game.

importance of teaching cues, orchestration

I've done many coaching clinics, and some coaches say "gees, why would you give information away? I know what you're going to do next!" But I always say, ya, but he doesn't know how I do it, He's got it, but he doesn't know how I teach it. To me, that's the secret, It's nice to have the information, but that isn't the secret- people think that's the secret, it's the tactic, or that fundamental of how you get those five people to forecheck, that's fine- but it's how you teach it, how you explain it, what drills you use, what teaching cues you use with the athletes. That's what makes it a little bit different. I could even give the teaching cues away- it's how you sell them, how you're emphatic, how you look the guy in the eye. That kind of stuff is how you do it. How you orchestrate it on the ice,

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— I can remember Cal Botterill writing me — I used to have a practice outline on this little card around my neck, I had this little plastic pouch that I put it in. I can remember Cal putting in an article, quite a few years ago, he said, this great idea that coach Drake had at the university of Alberta, it was published in one of the magazines. I see coaches now doing that, and you can have a little card in your pocket, and some coaches have it on a board that they set on the bench or whatever. That would be a bit of a departure, but I don't know, I think it's nice for the assistants because they may be in a different area of the rink, and kind of know what you're doing.

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We did that, and even for special team things we would quite often use the next line up. It wasn't a set five guys. I see in the NHL often they have five or six guys only. I convinced Bob Murdoch about that in Winnipeg when I was there, he has his first unit that he wants, and that's fine, and the second unit, but the idea of having the other 2 sets of guys know what's happening on the power play too. In a lot of teams, those other 10 - 12 guys would never see the power play, and I still see it, I see it when I watch the practice, they never see the power play. Which is dumb because now a days you get these five minute penalties, you got to have more than two units. That's just a thought of mine, but we had done that a long time ago. A lot of things are sound.

innovations

I couldn't really honestly say where it evolved — I know that we figured out that it was important to try to take the puck to the net, and to get an offensive chance. I guess we figured out a little way, a little progression, of how we wanted the players to work on developing the ability, first of all, the skating ability to take it to the net, and then go to the net with the puck. I think there are a few things — that one pops to mind.

innovations

I really do think — and I was talking to Bill Moors about this, not to long ago, we were talking over a drink. I really do think that a lot of things that we see being done now, really the germ of the idea did come from here. I don't want to sound that inventive, but there's a lot of things that we hear, even terms that we hear now, like driving to the net, the drive sort of thing, the drive drill — I think we instituted the drive drill. I can remember Tom Watt — I was working with Tom Watt, I had coached against him for a number of years, and we were together with a couple of student national teams, and then we worked together with the Olympic team in 1980, and I can remember him saying to me — you and that god-dam drive drill, you're always getting the players to drive to the net.

innovations

I talked to actually a friend of mine, you might have seen his name, Ludek Buckotck, the Czechoslovakian. I met Ludek quite a while ago at clinics and he was the coach of this team that I saw do this little twist. He's a very innovative guy, I think. I read a couple of the things that he's produces and gleaned some thoughts and ideas from him. As I say, in terms of inventing things, I don't know that I could lay claim to anything really. I think we've looked at things and put a few different things together, that maybe resulted in some innovative ways of doing things.

keeping a log book

I have thought about the log. I know what we'll do with a player who is not playing well, is we'll ask him to chart his daily activities, because sometimes it's a prep that makes the difference. If a guy's really playing well- say to him, you're playing well right now, what are you doing? What kind of things are you thinking about before the game? What are you doing before the game? Write it down, keep it. So you have something

to refer to when you are having a tough time. So we'll do that in certain times for a guy. But I've never asked guys to keep it ongoing.

keeping past training plans

I think that in the last few years, especially in a situation like this it's been much much simpler — I haven't had to sit down and write everything out, I've done it enough that it's there. What I do is I try to sit down and evaluate the team that we have that particular year, look at strengths and weaknesses and then go back and say OK, this team is more like the team that we had in 87. Just go back and look at early practice plans, and I try to remind myself of some things that maybe we did successfully then.

knowing when to work and when not to work in practice

I don't do a lot of fancy drills- I've seen guys do a lot of real nice flow drills, and stuff, and they're good. And every so often, I'll do those, but I have practices I call "no brain" practices- and every so often you have to have one of those. You've gone through a lot of games, and the guys are tired, they're mentally fatigued- If I go out there and try to run through a tedious practice, it isn't going to work. So I'll say- today (or tomorrow) will be a no-brainer. But I'll make sure it's a good physical work out for them, but were not going to demand a lot of their time at the board. We're going to keep it flowing from drill to drill. We're going to get a good physical work-out here, were going to work on a couple of things early, that will require some concentration, but after that, we're going to make sure it's fun.

loosing: post-game evaluation

And then I find too, the biggest problem with loosing is everybody wants to help you. All the organization around us has got suggestions as to why we're not winning. You have got to be very, very conscious when your loosing, to 2 things. I've learned this through my experience, and this is, to me, something I really believe in, You have to be smart enough sometimes to listen to people, but you also have to be smart enough sometimes not to listen to people. That's the key to coaching right there. If I listened to everybody, all the time, my team- I'd have them doing- they'd be all over the map.

loosing: post-game evaluation

So, with experience I handle it better, I still find loosing tough, and probably, I find loosing still bothers me a fair amount because I think that you always take it hard yourself, because you are responsible for your team. And when you don't do certain things well, you wonder whether you could have worked on that more, or why is that player not coming along the way you thought he would.

loosing: post-game evaluation

The other ones, where you haven't played well, and you lost, I think that's probably as good a teaching moment as well. If the structure of the thing is such that you can talk to them about it later, than you may do that you may say lets talk about this tomorrow - have a shower, get a bite to eat, get back to the hotel, try to get a good night sleep. Or you may want to dissect the game a little bit right there. Just, once again, so it's

clearly in their mind that these were the 2 or 3 areas that we really fell down, that we played below our normal capabilities in those areas tonight — we'll talk about it tomorrow, briefly, but those are the things we have to think about changing.

loosing: post-game evaluation

There's a lot more to losing than I thought, a lot more reasons for it than I thought.

Some nights it's just the other team. They make a couple of great plays, and are almost undefendable. Pat Lafontaine beat us in Buffalo, and I thought my god, no one could stop him, he was awesome, he and Mogilney, they were awesome. I can't tell the guys- hey the guys are great players, they made some great plays tonight. We'll have to find a way next time we play them to do it.

loosing: post-game evaluation

Losing is a different ballgame again. I can remember one really tough time in the national finals, we played against Toronto, and we lost 4 - 2, but we played really well, aside from the first period. We really outplayed them the last 2 periods, out shot them quite badly. It was one of those games where you feel as though you've won it, but you haven't won it. Those are tough, maybe they're a little bit tougher than others. You just have to come in and you talk to the players early about the things that you did well. You congratulate them, you give them credit and congratulate them on the things that they have done well, the fact that they did do a lot of things well, in that particular game we didn't end up on the right side of the scoreboard. You stress the positives, the things that we did very well. Nine times out of ten, if we continue to play that way, and give that kind of effort, we're going to be successful.

maintaining emotional control during competition

I think I've started to understand the impact that my emotions have on the athletes that I coach, and that almost anything that I do, is going to be read in a certain way by the players that I'm working with. I think now I'm starting to understand about the different messages that I pass along, and by understanding that I think I have much more control. When I look at a player, that means something to the player, the look sometimes may be very innocent, but because of how I do it, it has a dramatic impact on the athlete.

maintaining emotional control during competition

I guess I've learned to control my own competitive drives in terms of showing externally how I'm feeling inside. I've had a lot of people over the past few years say, well you're very unemotional, you seem to be very controlled, and very much in control, yet I know that's not necessarily the case, that I'm not in control a lot of times, but I think that I've learned that by making sure that I do look like I'm in control, it allows those people around me to be in control, and the situation to evolve more positively than if I'm out of control.

maintaining emotional control during competition

I have got to be very careful I think because I am quite emotional even though before we started the tape I talked about the fact that a lot of people's perceptions of me are that I am very calm, cool, collected, that I never show any emotion, where in actual fact I am quite emotional. I feel I have got to be very careful about making sure that when that emotion gets on the negative side that I'm not showing that because any time that I do show it, it's not an enhancement generally towards our performance, it's a deterrent. Especially when players are working with me and haven't spent a lot of time with me — their have been times where it's had a reverse effect simply because the players say to themselves, ignore him, we've got a job to do. They maybe become more in focus because I'm more out of focus, but they are veteran players and understand that a whole lot better.

maintaining emotional control during competition

I can remember a playoff game in Camrose, talking to my players, if I think about it for a minute I can probably remember the phrase I was using... Anyway the just of it was as we moved further and further into the third period of a one goal game, I was telling my players to remain calm, and composed on the ice, and I kept relaying that message over and over again — keep your composure, keep your composure, stay in control, except as I was saying it, I was less and less composed myself to the point where I was out of control. And what puts it in perspective is one of my players turned to me and said, coach, we'd probably stay a lot more composed if you could get your composure — that was so true.

maintaining emotional control during competition

So, that's on the back of my pads- I sometimes say, David, your mother is watching- cause I know I'm getting to intense, it tells me- hey, I'll see the big picture- tomorrow the sun will shine. Things like that, "put their skates on" to tell me where we are, to catch me, so I can settle down, and do my job better. I do a lot of that, and I really work hard at trying to make sure.

maintaining emotional control during competition

But for the most part, I find now, I deal with it better, I deal with adversity better, because I've rehearsed a few things to help me out with it. On the back of my coaching books I have always a different message for myself- it just depends where our team is, how I'm feeling about myself. I'll just have little things like, there was a time when I used to be really intense, too intense probably, and I could remember yelling at players, and referees, and so I put in the back of my notes one time-David, your mother is watching. And I just think of my little mother, over the glass, listening to me talk to players. And she wouldn't want to here me say- you son of a gun, if you don't get going I'm gonna' hick your ass. My mother wouldn't want to hear that.

maintaining emotional control during competition

I try to start to think about breathing a little bit, I talk to myself about things like parking, think ahead instead of think behind. Then I also start to think about - be positive, be positive, and remind myself to say something good as opposed to something bad, so I

force myself sometimes even to over exaggerate the positive, so even though I may not feel very positive I'm going to grab a player when he comes off the ice, and usually I think, in a very sincere manner, say - good play on that, what you did in that particular situation was good. And in doing that maybe ignore three or four things that he did that weren't very good. Or verbalize some positive things to the entire group – talk out loud, and in a sense talk to myself to get back on track.

maintaining emotional control during competition

There are nights where we will both sense as a coach, we may even say to each other lets make sure we are alive on the bench, meaning that we don't think that they are quite, maybe they are falling asleep on us, or it is late in a trip, their focus is stuck and they are thinking about we are going home tomorrow versus having to play the Minnesota Northstars tonight, these are the kind of things we will discuss and we will read off each other, and say what we think we need to do to prepare our team better.

maintaining emotional control during competition

I would like to think that I never loose it, unless you're designed to do it. I think every good coach has to be prepared to show some true emotions. I think if you want to loose it a little bit, you loose it by design. I don't mean it in the wrong way – it's not phony, you really feel that, but you say this is the right time to get emotional about it. You do loose it, but, to me, if you loose it involuntarily, then you're not doing yourself any favors, you're sort of taking yourself out of the rational thought process.

maintaining emotional control during competition

You have to show some emotion, but you have to do it in a controlled way, so that it's not a negative thing, against the official, I'm not saying that I've never done that – I'm sure I have, I've done a lot of dumb things. I think that somebody that's really involved in the game, that has himself up for the game. I think that occasionally, that's going to happen to you.

maintaining emotional control during competition

I had one player react once, in pro, and he said to me – tell me after the period. So I didn't say anything at the time, and I talked to him after the period. Some guys are maybe a little bit too high emotionally, and they cant get in. To me it doesn't make too much sense to wait until the end of the period if you can make, and I'm not talking about a lengthy dissertation about anything, it might be quick reminder on a board, like going here instead of there – something like that.

maintaining emotional control during competition

I think you have to show some emotion on the bench, at the right time. I've shouted at referees occasionally, I don't think I've ever sworn at them, but you shout at them every once in a while – you gesture, a little bit of hysteries, not a lot. I think you really have to be careful that you're too quiet, too composed and say I want to be a coach that's tremendously calm and composed. I think that you have to be that way the majority of the time. I also believe that you have to show the players, that if things are

going badly, and you think that there's some injustice happening, that you can't just sit back and not react to it – but you have to react to it in a very, kind of in a positive way, so that you're not losing your cool, because you're asking your players not to lose their cool.

maintaining emotional control during competition

I just grab that book out again, I've got my message there, and that just catches me right there and says- hold it! settle down. And then usually I'll just say "that's it, take charge, right now" That's the phrase for me- take charge. And so I'll just get real positive, real quick. I'll just turn right around, and the first good play I see- I'm going to be positive. Catch myself right away, and get out of that negative mode I was in. If I can do that, and usually I can, I'm great.

making adjustments between periods

I'll also go through in my mind, if I think we've been going with four lines, but we're behind, we have got to create more offense, how can we adjust to three lines and create the offense we want, or what adjustments do we need to make. I may not be prepared to do the immediately but I'll rehearse ahead of time that adjustment if I get to a certain point in time – OK. this is the direction that we are going to go now.

making adjustments between periods

We'll set up some things with players too, we have a pre arranged plan if we have to pull the goalie – face-off alignment that we'll go through with the players so that if we say goalie out, our players know that a certain group of players are going to go onto the ice. I'll rehearse that in my mind, and I guess I go over that again in-between periods – we're going into the third period and we're tied or we're down by one goal I'd like to go through in-between the second and third period before I get down to the last minute of play in the third period, who I might want out there, given what's happened in the first two periods, if we decide to pull our goalie.

making adjustments between periods

You do some of those kinds of things but also again I think as the game goes on when you're coaching and playing against good teams you have to make adjustments.

Maybe you have to change a little bit of what you are doing on your forecheck, so clearly you have got to think your way through – how can I do that in two or three sentences, but get the message across that we have to change. A lot of times I find that in-between periods, in terms of technical adjustments, it's associated with special teams, power play, penalty killing – they're doing this, we need to do that, just a reminder, because now you have got the whole group there in focus.

making adjustments during competition

I think I need to be at my best in terms of being on the bench and speaking in front of the team. I think those two things are separate, on the bench their are some mechanical functions – making sure the people who are up next are ready to go, making sure that I've got a clear picture in my mind given certain circumstances who

do I want on the ice. For myself I will write out in the pre-game period where I'm getting ready, these are the penalty killing pairs I want, this is the power play unit I want – that doesn't mean that during the game I wouldn't change those, but going into the game, this was how I was thinking. Now during the course of the game, this guy might be playing so well, that I might have the sense that I should include him now on the power play at this particular stage in the game, but I have got my reminder to go back too.

non-verbal communication during competition

Now if I happen to look at that athlete just before he is going out on a shift with that look, I know sometimes that can be a deterrent to what he is going to do on that shift. If I'm going to look at the athlete I now understand that I've got to maybe say something positive to go with the look, the look may remind them of some of the things I want him to think about, but he's got to have that reinforcement, it is that kind of communication, a positive communication.

opportunities to teach in game situations

In a long season I look at that as a few more opportunities to teach, to get some messages across that are harder to get across during practice than they would be in a game. Great time to talk about discipline – we're ahead four - two in the game, we take a bad penalty, we're in absolute control, we take a bad penalty, they score a goal, last five minutes we've been hemmed in our end, we've lost control of the game - why? Because we lost control of our discipline. That's not something you can teach in practice nearly as well as you could at that moment in a game, where it comes up.

over use of video in team preparation

There's sort of a distinction in coaching, the things that we did, for the last 20 years as opposed to things that we did before that, that weren't nearly as sophisticated. I think you have to be careful, I think you can get – it's a little bit like statistics, you can get carried away with statistics, you can get carried away with video taping, although I really lean more towards the use of them than not. I think I read just recently the comment the Barry Melrose made recently, that Dave King uses a lot of video tape, and he said that we don't bother with that sort of thing, which I think is an error on their part – you have to use video tape and it's a tremendous teaching aid. It's the one thing – you can talk to some players, it's perception again.

painting the big picture

I want them to be sensitive to other people around them, to always come to the rink thinking- what a great job I got going here. Have I ever got it made. Somebody's paying me to play hockey. Do you say "I'm going out to work hockey today?" No- you say "I'm going to go out and play hockey today" You're getting paid to play. Can you believe how lucky we are? We're getting paid to play. Most guys get paid to work. We get paid to play. Never forget the opportunity, so I keep hammering away, subtly, at never forgetting the opportunity you have got.

painting the big picture

And so, I'll always find time to tell the guys about that- I tell them stories about my dogs. They just love to hear about my dogs. When I come home, win or loose, my dogs just know me. I role on the floor with my dogs- can you guy's believe that? That I talk to my dogs? They cant- bullshit, but I talk to my dogs all the time. I get down on the rug and I talk to my dogs. In dog talk. So I make sure they know that their is another dimension to this guy, that's there. That they know I'm human, that I'm not just a coach. Because sometimes they think all we do is eat, sleep, and drink hockey. That all we are is a coach. That we are never satisfied, that we have no other life.

painting the big picture

So I always find time to go back and paint the big picture. Find time for them to see me as a person. Talk a bit about myself. I always find time in front of the players to talk about myself a little bit. Never boastful, just about myself. The other day I thought the guys were loosing perspective, so I said- you know guys, I went out the other day in Calgary to eat, and went into the restaurant, and the guy recognized me- DAVE KING was in his restaurant. First of all, he almost fell down coming to the door to get me, and my wife. Gave us the best seat in the house. Free bottle of wine. Dessert- no cost. The guy couldn't have done enough for me. I left there, he invited my family back sometime, gave us a loaf of this bread that he bakes himself. And I said- I left there, you know, and the first thing that crossed my mind, was that I got preferential treatment because he knew who I was. But guys- I'm only Dave King, and I'm not going to forget that. I'm nothing special. That guy thought I was special, but I'm just another person. If he thinks I'm special, that's his decision. I know who I am. I'm just Dave King.

painting the big picture

So, we do that a lot with the guys, I've taken the guys a lot this year, and talked to them a lot about other things besides hockey. Like, at the start of the season, I talked to the guys a lot about the opportunity they had to be players. I collect articles from all kinds of papers, and I collected some articles on people that had gotten through some really tough times. I gave one about this girl in Washington who had gotten a case of spinal meningitis, within hours they had to take off both of her hands, and both of her feet. She is a beautiful young girl, 16 years old, and she lost almost up to the elbow, one hand, on arm, a hand, and both her feet. And there was an interesting newspaper article where she talks about what she went through. I want the guys to see opportunity. I want them to understand the opportunity that they have got.

painting the big picture

When I first started coaching the high's were real high, and the low's were real low, and now, with more experience I think you find the medium there. The wins, you put into perspective quickly, you know you got your 2 points. As a coach, the more you experience the game, the more knowledge you get, and I think the wins, you quickly put in perspective- you know you had a not goalie, you know they missed a couple of great chances, you know you had a great night, played super.

painting the big picture

They may say he's dwelling on the negative, we got to improve. So the problem is you're perception is, as a athlete, that I'm never satisfied. My perception is I'm trying to make you better in those areas. That's the hardest thing in coaching. To be able to make the guys aware that you're not trying to be negative, but it needs to be improved. You've got to continually stop yourself, a lot, as a coach, and say hold it now- today's a real good day to paint the big picture and give them just good news. tell them how great they are today, tell them how much you appreciate them as people, how hard they worked. You have got to do that every so often. They can't see you continually in the role of never quite being satisfied- which is part of being a coach.

painting the big picture

But one thing that I find very interesting though, and it's a very important part of my job, is sometimes to get them together in the room downstairs, and just talk about painting the big picture. Here's where we were, here's where we are, here's where we're going guys, and put it all back in perspective again. If I don't do that every 15 or 16 games I think the one game becomes another game, and the guys don't know exactly where they're going.

painting the big picture

I think it's important that the guys meet my wife, and see my kids. So I bring Scotty to practice the odd days, so the guys can see- he's got kids, here's living proof of it. Because they sometimes don't see that. They see you being something different, that you're not. But those art things that, I guess, with experiential learning. I've just found important that the guys recognize that you're just a human being and then don't be afraid to tell them sometimes, what you really think. Open up and just talk with them about- their good people, and you recognize that the effort's there. Support them. Say no more than that, and that's good enough some games. That's part of coaching

painting the big picture

They know they're going towards the end of the season, and they know the importance of every 2 points. That's very important- that we paint the big picture for them all the time, on a regular basis, so that they can see that there is progression, that they can see that there is some plan, that they can see that there is organization to this whole thing, that it's not just playing game after game, and always reacting to the previous game. Because you don't want to become just reactive to the previous game, you can't do that.

painting the big picture

Cause I think a lot of times athletes now, and I really notice this with professional athletes, they make so much money, and they have so many things given to them, they have so many little perks, that you and I don't get, that they soon loose perspective. And it effects them on the ice, it effects there training programs, all those things. So I am continuously painting the big picture of where they are with there lives, because

that to me is the essence of the whole thing. If I can keep them focused on where they are, what kind of person they really truly are, we'll do fine. It's when they're going to loose that perspective, that we're going to have trouble. I do a lot of that stuff.

player evaluation

For the players, to keep them on target too. It's important that they see more than just the Stanley cup at the end- that's not good enough. We do a 20 game evaluation of each player. Every 20 games they come in, and we do a major one-on-one interview with the player. And the coaches. And we all sit down and give the player input and ask him what he thinks about how he is playing, where he can improve, and we give him some feedback.

player evaluation

We do an individual video on each player. We take clips off all our game tapes for every player of areas of the game we think they can improve, or are good. If we have got a player who is down, we've got some good clips to pick him up. If we have got a player who has to improve, we have got the video to show him what we're talking about- the coverage in your own zone, here's the clips. So we use video a lot. Video support is worth an awful lot, because I think a lot of players can't really conceive what you are saying until they see it. Video is very helpful.

player evaluation

With Dave, we do a lot of teaching through the video, and we have hired another coach, and Slavomeir Lennoar who is a Czech coach that puts individual tapes together, so sometimes you can say to a player, geez you are making a mistake here, you are making a mistake there, but the player, it's a reaction game, it's a quick game, so he has done it in a particular way. If you become so critical and get down on him his confidence goes down, so what we do is we show him through the tape, bring him in and show him the tape and say I have been telling you these things, now you tell me is it that what you are doing, and eventually you hope that he is going to better understand what you want from him as a coach, and what he should try to do.

player evaluation

If you do an evaluation, and with the Bears we did this in the early part of the season, while we're in the selection process, we did an evaluation after every practice. We'd sit down as a coaching staff and get a numerical figure, 0 - 1 - 2, we'd get a numerical figure for that player for that practice in terms of his attitude, and his effort and his demonstration of skill.

player evaluation

So I tried to be a good listener, to start out with, and made sure that the guys knew that my door was always open, you could come in and talk to me. Now that were moving along, having a decent season, I hope that still exists, but now I think I'm being probably harder on the guys, and a little less, accommodating at times. We're half way through the season, and I got to bottom line it with some of these guys. I've given

them opportunity. I guess that's what I'm saying, and the whole idea was to give them opportunity. I wasn't going to go in with too many preconceived ideas on them, provide them with the opportunity, and really stay with that, and to about the 25 or 26 game mark, I think we were very very fair to the players in terms of total opportunity. But then at some point in time, you have got to say hold it now- we have got to start to think about winning and success, and the best people have to play more, if guys can't do the job in those circumstances, then they can't play in those circumstances.

players pre-game preparation

The other thing that we did in Winnipeg, especially the first year – we were trying to do some different things, and introduce different things, we did a lot of teaching, during those morning skates. We had, sometimes, a 45 minute skate – most teams go out for 20 - 30 minutes. We did a lot of teaching, and I think it was a positive thing – it depends on how many games you're playing in a row.

players pre-game preparation

The day of the game, when we're at home, is pretty much like a normal day. We try to encourage our players to approach it a little differently, we play Friday, and Saturday – What we try to do is encourage the players, to say to them, look, you have to make some adjustments, if you possibly can, maybe you have to make an adjustment about one of your classes, to try and eat properly, far enough in advance of the game, and just try to make it not to skip a class, but they have to adjust and to think, and not just to go to class normally, and say if they had a heavy schedule, like a lot of our players have – their in engineering or medicine or whatever. Coming out of class at 5:30 and then coming over to the rink. We encourage them that way.

players pre-game preparation

Some of the things that they would do in terms of their eating habits, or whatever, and then a little bit of mental preparation, visualization or whatever, and we encouraged them to do some of those things, without always monitoring it that closely – I guess you can never really monitor those things too closely, If a player says yeah coach, I did some visualization – you have got to take his word for it. Most of them are very good - - most of the kids, after was introduced, became pretty accepting, pretty enthusiastic about that sort of thing

players pre-game preparation

We've always talked in terms of the players being at the rink an hour and a half to an hour and forty five minutes before the start of the game, so that they could get dressed comfortably. We also stressed in the later years, more recently, like when we got into things like the goal setting, and energizing and the self talk, and those sorts of things, we talked to players about setting up a plan for themselves, that they were comfortable with, for their individual game day preparation.

players pre-game preparation

When you're on the road you have a little bit more control. We have a structure of things that we did on the road. We never went for a pre-game skate – very seldom, occasionally in playoffs. I'm not really a strong believer in that. I think people get kind of conditioned to that, in pro hockey it's necessary because you may play one night and then you play the next night, now sometimes when you do that you don't take the skate because of the fatigue factor.

post-game summary

I'll always go in and talk to the players. I never, ever, don't go in and talk to the players when the game is over. And the message, you read your team, sometimes we mention our winning and losing record. Some nights we'll win, and not play very well. Basically, what I do, I let them celebrate the win. I only talk about the win. Because that's what they're there for, and maybe we didn't win pretty, but we won. We got our 2 points, and for that particular night, I want the guys to think that they have accomplished something. The next day, I'll put the win into perspective for them. The next day, not that night- I don't want to ever tarnish the win. That's the essence of the game- they're playing a game- they won. They know pretty much that they didn't play well sometimes. But I'm not going to mention it- I'm gonna say, guys, we won, we'll work on some things tomorrow, we got our 2 points, here's some of the things you did pretty well, tomorrow we'll talk about a few other things.

post-game summary

I think you have to recognize where you're at, going in, with some teams that we've had here, we've been very very negative in the first half summing up games, saying we won, but boy we didn't do this well, we didn't do that well, to try and emphasize the fact that we felt that we had to continue to improve, that in fact, let's not be satisfied – yeah we beat that team by two goals, but in reality we should beat that team by six goals. Evaluating your play is not based on just winning or losing, it's based on performing to a level that you're capable of performing at, and I think there's a range that you have to shoot for – you don't always want to be at our peak, but we also don't always want to be below our level of capabilities. Sometimes with better teams I think we've spent a lot of time trying to remind them of that. That's also been part of a bit of a plan that we would be prepared to be a little more negative in the first half of the season, with a clear understanding that in the second half of the season, we must be much more positive, and I become much more conscious of that.

post-game summary

Try to be specific about what those weaknesses are. It would depend on who we played, and how we played. If we played very well and lost, I'd focus on the playing very well, and that yes, we lost, but if we played that well it means that we're growing and developing, and then I try to lead all of that in to thinking about the next time we're going to be on the ice. That gives us a focus now for Monday nights practice, we know where we have to start off, and again that's win, lose, and based on how we played the game.

post-game summary

I don't know if it's right or wrong, but I always like to sum up the game a little bit. I've always tried to tell the teams that I coach that I feel it's my responsibility to be honest with them. I guess maybe that's something that we've had periods of time here at Nate where we've been very successful, where we've won even though we haven't played very well, and so I think it might be a little bit different if I was in a circumstance where we weren't a very good team, I might not be so honest, but with a good team, I think you can be more honest. I've always tried to remind them that, yeah, we've won the game, but there's a lot of things that we didn't do well here, so let's be satisfied with the fact that we accomplished what we wanted to do, which was win the game, but let's not be satisfied with how we did it, that in fact, we are going to have to be better the next time out because there are going to be some games that we won't win if we play this way.

post-game summary

A little bit of the summary, sometimes, like this past season we weren't quite as successful, we struggled to win, sometimes I had to be just absolutely positive, couldn't afford to be negative. I recognized that as we got a little farther in the season, if we're not careful here we're going to have a lot of games where we're going to say that we didn't play very well. If you say that enough times, pretty soon we're going to start thinking that we're not a very good team, so let's get away from that, let's be a little more positive here, let's talk about what a good team we are.

practice plans

Clearly as I look at my practice plans I can see changes in how I've evolved as a coach, but I find that it's really good sometimes to go back. There's things that I maybe used to do that the next year we were beyond, but that doesn't mean that two years from now we might not be back there. I found that going back to practice plans has helped remind me of those things.

practice plans

Over the years, I'm sure that there's hundreds or thousands of drills that we've done. Some of the things are much the same as what we used to do maybe five or six years ago some of them are vastly different. I haven't taken every drill that I've ever done and written it up in a nice little drill format and put it away so that I can go back. A lot of them I have, but a lot of those things are also stored in my practice plan, so I go back to those to remind myself of things I have to do in those areas.

practicing at game speed

In practice if you're doing a shooting drill where you want to work on a particular kind of shot you give a number of repetitions but in giving those repetitions you're not really gaining much if you're doing everything at half speed and when game time rolls around all of a sudden it's got to be cranked up 200%. Initially you may not start off at full speed, but you are going to build towards being able to do that skill at full speed.

practicing at game speed

It's my way of thinking that's always been a focus in terms of what I have tried to accomplish in practices, to create a game tempo and to create a situation where you're trying to execute skills at game speed, whether they be team skills or whether they be individual skills. You do that by interspersing little breaks throughout practice so theirs a build up, up and down, maybe a slow building at the beginning and maybe a peek in the middle, and then maybe a little up and down and then a tail off at the end.

practicing at game speed

I think that's a very important part of coaching, it's interesting because when I look at coaching in hockey there's a big different between coaching college hockey and coaching pro hockey in this particular aspect. I've always believed that anything that you do in practice should be done at game speed -- you're trying to reproduce the game environment in practice, but in a controlled manner so there can be a more narrowed focus on a particular idea or a particular skill.

practicing for game situations

The main thing is, if I can make sure they understand that this applies to an opponent we're playing coming up, I have no trouble with them ever applying themselves in training. It's when they don't understand why there doing it- is it just another meaningless drill? does it have some application?

practicing for game situations

That's what happiness, you just try to make your practices much like parts of the game some aspect of the game. When you do that I think practice concentration comes along very well. They can see, they can conceptualize- this makes sense.

practicing for game situations

We had this guy that came to us from Toronto in a trade - Ed Olyzckeeck, and I watched him for three or four games, and he continually turned away from the puck, and the puck went here, and he went there. So I talked to him about it, and he said I don't do that, I'm sure I don't do that, that would be stupid, I said yeah it is stupid, it's a dumb thing to do. I think I know why he did it, he was trying to avoid contact -- he was one of the players who wanted to have the other guy give him the puck. I got about 6 or 7 examples from one game, and showed him -- there it is. I set up a drill with him, a skating-agility drill

practicing for game situations

And I think the other thing is I- a lot of my drills are so game situational, players quickly see, that -gees, I use that a lot in the game. That is a good drill, it makes a lot of sense, and so I'll have a lot of guys saying to me- Kinger, could we do that chip drill tomorrow? The chip drill is when the puck comes around the boards, and the winger's got to take it off his skate to his stick, and then the pinch comes, and you have got to chip it off the boards. That's a big part of pro hockey, in all the small rinks we play in. So they'll ask me- don't forget the chip drill- I need it.

practicing for game situations

One thing that is very important, is I always try to make the preparation in practice, whether it's true or not, I try to make mention of how this applies to the next opponent.

We might be working on the penalty killing aspect, and I'll say- boy, this team we've got to play against, this power play, they do this a lot- and this is the part of our penalty killing that really applies to that. We're playing against Philly, and they forecheck very aggressively, so I'll talk about that, in the practice before, or 2 practices before about the Philly forecheck- this is what we have got to do to be effective against that.

practicing for game situations

So the most important- and that's why I say some coaches are armed and dangerous- probably one of the greatest skills I do have as a coach is getting the guys in practice to concentrate, because they think, whether it is factual or not, that this is really going to apply to playing that next opponent, or the next opponent down the road after that. So that is what I always do to reinforce, this is what you are going to do in a game situation. This is game hockey- this is exactly what happens in a game.

pre-game talk

I would split those things up, I wouldn't try to do too much in one setting, so I'd split those things up, maybe a quick couple of points. I usually try to outline three things, and then if I felt that it was necessary to say something very motivational, or something that I feel could be motivational, then I would use that as the last thing I would say before they go out to play the game.

pre-game talk

Sometimes you want to go over one or two more things. We did that off the ice -- we had team meetings, we talked about that and I talked with a lot of coaches who are coaching pro, and say why do you skate every morning? Well, I don't know, everybody else does. When I say about the players getting used to it, the players sometimes feel cheated if they don't get a chance to do it, from a personal preparation maybe they like to do certain things.

pre-game talk

One of the things that I thought was reasonably successful is that some of the points that we wanted to highlight, on poster board I had put down 6 or 7 points that we had stressed during the week, and a lot of times these things would be repetitious. Taking pride in our work ethic was always number one, that sort of idea -- Golden Bear work ethic was something to be proud of and that you wanted to maintain. There would be general points -- at the bottom would be reminders about, I used to put down a couple points about face-offs and the importance of face-offs, we want to be successful in the defensive zone face-offs, a reminder to a centerman that we wanted to be successful in defensive zone face-offs.

pre-game talk

After warm up I would speak to them somewhere after they have had a little bit of time to cool down, a few minutes before they go in the ice, with maybe some very quick hitting reminders. During the course of the early part of a long season, again, I use it as a time to teach – it may involve, if I feel I have got two points where I want to use some sort of visual display like a chalk board, I guess usually that would be the normal course, we actually have an overhead projector we use in our dressing room here at home.

pre-game talk

Usually at that point in time I would identify who would be starting that game, so that they have a few minutes to think about the fact that they will be starting the game for us. I think over the course of time players recognize that as an important function of team – who starts the game is usually an indication of some other things that have happened, I hope they do because generally, the people I start at the start of the game are the people who have either worked the hardest during the week in practice, or are the players who played the best the last game we played. Is a reinforcement for what they're contributing to the team. There's usually a positive message in the fact that they are starting and that there's a sense of confidence gained from the fact that, well he thinks enough of me to put me out here at the start of the game.

pre-game talk

I word of encouragement – I wouldn't call it a pep talk, not a pep talk as you think of Knute Rockney – have you ever heard that recording? I have it on tape, when you listen to it sounds good, it sounds kind of hockey, doesn't it? Not that kind of a pep talk, always a couple of words just before they go out for the game – mostly reminders, and just a word of encouragement.

pre-game talk

The physical activity of it, like what we did with Winnipeg, a fair number of times, we would meet, the normal time instead of going for a skate, we would meet at the hotel, we'd get a room at the hotel, and meet in shorts and a tee shirt and have a little talk about something related to the game, and then the players would go through a light work-out. Rather than, in many cases, depending upon where you're staying, in different cities, rather than getting up and getting on a bus at 10:00, where it may be half an hour through traffic to the rink, putting your equipment on, having your skate – your 30 minute skate or whatever, get back on the bus, and go back to the hotel. That's a two-and-a-half to three hour process that you go through, often for the sake of doing it.

pre-game warm-up

As we approach game time I have sort of a game routine – I like to speak to the players just before they go out for warm-up. There I would remind them about what I think are the absolute key ideas towards that particular game. It would be I guess, in my way of mind, still another teachable moment where during the course of a long season I might

be a little bit longer talking there, in terms of teaching them a little bit more. But as you draw into the key games of the playoff season, you have to be really focused, really short, to the point, not to much and then let them warm up.

pre-game warm-up

I think the warm up is very much a part of preparation, I think the players have to understand that the warm up is 2 types of things, it's a physical warm up, it's a stretching, a loosening of the body, getting the heart rate up, getting the blood pumping to the large muscle groups and making sure that they then get stretched properly to avoid injury. More importantly it's a mental gear up to get you back to the level you were the last time you played or the level you were at the last high tempo practice that week so I'm focused, I'm using that warm up to focus in on the things I'm going to have to do today individually to be successful against this particular team and hopefully focused individually on what I have to contribute to allow us as a team to be successful. I'm hopeful that the athletes are going through in their mind while their warming up a little bit of a rehearsal of what their actually going to do in the game.

preparation for competition through video

We do a lot, and again as I said I feel it is very important, I don't know, I am assuming that most teams in the NHL do a lot of preparation. I was talking to George Kingston sometime back and he was saying they see 2 or 3 game tapes of the team that they are going to play against, and I think that is part of it, as a coach. During the course of the game I think that there is the emotion of the game, the focus of the strategy, lots of times especially if you go into stretch of games where you are not successful and it becomes very negative thing, every mistake you see are bad mistakes, and so you have to allow yourself to watch the tape, follow the game, really analyze it to see what went wrong and what you think your team was missing, what you saw that game and what you are going to see on the tape the next day might be 2 different things so it allows you to refocus and back off.

preparation for competition through video

Preparing for a team, you look at their previous games, you look at tapes, you look at the kind of team that they are, are they a hard court checking team, do they forecheck into a split, what do they try to do as far as strategy for them to be successful, try to implement your team some of the strategy. You can only do so much preparation too, a lot of it is through video. Dave takes a lot of time to do some pre-scouting and sometimes will delegate some of that work to us, we put those clips together, we show them to the players.

reading your team

And that's reading young group, reading your team, that's understanding that at that point, that's exactly what they need. That's part of the art of coaching. There's a science to coaching, but the art of coaching.... How you motivate them to do it, how you use video to reinforce it, all those steps make it work. Having the mechanics of it isn't enough. It's just not there.

role of assistant coach

I wish the guys would feel comfortable in coming to me all the time, but sometimes I have to be very demanding of the guys, to get the results we want. Sometimes it doesn't make you very popular. Guy doesn't bench anybody - I do. He doesn't tell a guy he's not dressed- I do. That's the nature of the job- you have to tell people things they're not going to want to hear, a lot. I don't ask Guy to do that. I don't ever want Guy to ever have to do those kinds of things. I want the players to be able to say to Guy, "why did Kinger not dress me" They can come to me too, but I think a lot of things they'll go ask Guy.

role of assistant coach

As an assistant coach I know that I read a lot off Dave. I know that he is going to be well prepared, all I have to do is be as prepared to do what I have to do as assistant coach – be there, rotate the defensemen. I have got to prepare myself mentally about who we are playing against and making sure I have the right defensemen at the right time, the motivational side, keeping the guys loose. If I sense that there is some tension or he may say, jeez I don't know if they are ready, I have always been a vocal guy in so far as making sure everybody gets all pumped up and I get them ready in my way. I guess that's part of my role as assistant coach, reading off him what he needs from me. That is part of my role.

role of assistant coach

I've tried to get people to complement me, so Guy Charon, for example, Guy has got... Players like Guy. He's a relaxed guy. He's a nice guy, people like to talk to him. He's a good listener. He gives them somebody they can talk to, without having to deal with the head coach all the time. So that's good. That's the one personality I've made sure is part of my coaching staff, the rest, I look for expertise in certain areas. But I have to have one coach that I think the players are going to feel more comfortable with.

role of assistant coach

I guess my role has changed in some ways, a little bit with here (Calgary) versus the national team, and Dave was very demanding and tough, so my reading was that I couldn't be, I had to be the opposite, I had to be the guy who was going to bring the positive atmosphere, making them understand all the reasoning behind what Dave was trying to have you guys do. Here he has been very positive, I sense sometimes that I can actually come down on the players without feeling that I am stepping out of my line as assistant coach because I have been with the team, I have coached the team, so there is a certain position now that I can take.

role of assistant coach

People have always said I have always had a good relationship with the players. I have been considered as the buffer, the guy who can bring something to the table in that area. I think there are times where I think a guy needs to be boosted, so I will go

and talk to him. It is very difficult as an assistant coach to really come down heavily on someone.

role of assistant coach

If you have only been an assistant coach, or you haven't been around the team or let's say, Dave, his positive attitude has been that it is an adjustment for him, it is his first year at pro hockey, so he is reading a lot and I sense sometimes that I can come down on the guys because I think they maybe wanting to take advantage of Dave or the particular situation and I'll express that to him. So maybe my role is a little bit different this year because I have been with the team for, this is my third year right now.

role of assistant coaches

During the game, the way we eventually worked it was that I would work with the forwards, and Bill would work with the defence. Occasionally we would switch around, but mostly that way. We would watch for things and talk to players during the course of the game – not really, not talking too much, and not when we first come into the box – let them settle, but remind them of things. Then if we saw something we wanted to mention to the defence, I'd mention it to Bill, and he'd talk to one of the defencemen. It's a co-operative arrangement between the two coaches. I really think –

role of the coach in team building

I was always impressed with the way one individual could affect so many others in one direction. In those days it was one coach by himself, no assistant coaches, one coach by himself. He could take a group of 20 athletes and get them all channeled in such a great direction, all together, so focused. They could make you buy into a team play. That always impressed me, somehow they could do that, they could get you to do that, you played as part of the team. You were hoping that you might score a goal yourself, but you could really sense that there was a continuity to the whole thing. That really impressed me, they could direct and orchestrate that and yet they didn't force us to do it. Somehow they had a way of making it understandable, making you understand that if you did it, you would be successful, and when you did it, you were successful. I found that very interesting, they could have that much influence, in terms of influencing us all to buy in.

scheduling

You especially had to do that with players that came in out of the junior hockey environment because they played 72 games in their league, and we play 27. They had 72 games and then 8 out of 10 teams would be in the playoffs. Virtually all of those 72 games were meaningless – it's like a microcosm of the NHL. I think the NHL in my opinion, it may start to discover, it's just my supposition, that if they maintain the same number of games, which is a grueling, tough, tough schedule of games for players to perform, and then have all these teams in the playoffs, they have got all these playoff games going on every night. I know lots of die hard hockey fans, and I ask them, did you watch the game last night? – yeah, I tried to catch the last five minutes of the game. As soon as the advertisers find this out... The players themselves, going

through that grueling schedule, they want to make the playoffs for sure, but it's impossible to get too enthusiastic until the playoffs start, which is unfortunate.

scheduling

On the road trip we had, we didn't have a lot of time to have a real good practice, because there was a traveling day and you had to implement practice during that day, well, if you travel for 2.5 to 3 hours on a train, that is beside taking a bus to the airport, arriving at the rink, it is difficult to put them through an hour and a half practice when you know you have got to play the next day. There is not a whole lot of time, so there is a time in your schedule I have felt when we talk with Dave – the earliest days of your season, that is when you have to try to work the hardest, because you may have the luxury, but as the year goes on, like right now when you look at our schedule there is times where you really have to taper, and your practice can almost 40/45/50 minutes, and if you were to do that all year I think you would lose a lot of quality practice, and I think that players do get better from practice.

scheduling

Let's say, for instance, we had a day off for a travel day yesterday, but today's work out was not a hard demanding one because we have got to play again tomorrow. There is an element of fatigue from the road trip. You have to prioritize where you need your work done for your team to be successful. Specialties are one of the couple of areas that you can work at without having too much physical demands, so if you can't work on a lot of hard work, then you work more on your specialties which does not ask for as much banging and crashing. When you feel that there is a time of the year that you have to do a lot of working so that they understand what kind of effort and battles you want then you have got to find times in your season to do that, and I find it is early in the season.

self evaluation of coaches performance

I usually rate myself on my coaching, when the games over, I always find time to rate the players, but I always find time to kind of rate myself too. Was I part of the reason why we won tonight, or was I part of the reason why we lost tonight. And there's still nights when I say- if I'd reacted differently, and better... might have been different.

superstitions

I try to stay away from superstition. I went through a phase in my coaching where I was very superstitious. When I first started coaching, I thought- I can't be this good. There's got to be some luck to this. So there's got to be some superstition. So the first years I coached, that was ridiculous- I'd get up and say- now yesterday I put that sock on first. But then, if something didn't go right, I thought Holy God.

superstitions

But as you start to understand, it's not luck, its preparation. It's work, and you are getting better at what you are doing- give yourself some credit. Then I realized, superstitions- I don't need those. If I just do my job, and work hard, things will take

care of themselves. So I broke that superstitious part of my coaching, and now I'm into what you might call a training regime, for myself- but it can change- no problem

teaching points

It's those little teaching points, sometimes, that you don't think are very important, that are only minute things, but the athlete says "how did he think about that?" You think it's a small point, and to him it is a small point, but it is a big point too. Because he is thinking "how did the guy figure that out - Gee, that's a smart little point." I think that's part of being a good coach.

the vision

The pro players- there game is to get it in deep, they want to fore check, and have contact. And there logic is good. There saying- coach, what you're trying to do with this contained fore check is great, but it doesn't allow me to complete checks, and that's my baby. Hitting people, that's how I get into the game. You'll get more out of me if I hit somebody. And I'm saying- yeah, I understand that, but, if you do that for 84 nights, I'm not sure what will be left the last 20 games. So there was a give and take.

the vision

We've got a group of athletes, a number of who won't be back, but enough that will be that you have got kind of a nucleus built thinking that this stuff makes sense. I think it is simple, but yet it is effective. Those are certainly things that over the last little while have become more important to me as a coach, in terms of getting people to buy in to what you are trying to sell them as a coach, and I really think that coaching is very much a sales job. You're selling your direction, and you are most successful when the group decides to by your direction.

the vision

One of the things that I feel now is important is to try and make sure that you can create in the minds of all of your players, essentially the same vision. I've herd some people talk about it saying theirs the north star, we want to follow the north star, whatever it is we want to accomplish, with the national junior team it was to win a gold medal. Once we have established — theirs the goal, the gold medal — I've always tried to make sure that my athletes knew that their were lots of different paths to the gold medal, there's no one set way of doing it. The key to getting there, though, is the fact that we do decide, as a group, that we are going to follow one way, and the guy that has been designated to set the direction is the coach.

the vision

I think it can be taught, and part of it is, there's got to be some conviction to it. The guys have to sense that, first of all you have got to know what you are talking about, and they've gotta sense that you really believe in it too, and that you're not to the point where you can't listen to somebody else's suggestion. They have to sense that you really know what you're talking about, and that you really believe that this is going to be effective.

the vision

You've got to believe in yourself, and you've got to believe in what your doing. You have got to believe in that. Hopefully, your track record reinforces that you are going in the right direction, that you have a vision for your team. I have a vision for our team, believe me, clearly, how I want us to play in March and April, and were getting there. I know we're getting better. And I know we're getting there

the vision

And there still being resisted because they just think there is a better way. They're convinced in there mind there is a better way. I'm trying to sell them, its a long season, and I'm looking at trying to make sure that in the last 20 games we have got lots of energy left, and we're going to be a team that's going to be very well positioned in the standings, and were going to be fresh, and were not going to be tired, were not going to play this chase, chase, chase game, all the time, every night. Were going to play smarter and conserve some nights, and play a different kind of forechecking system that conserves energy, and when you think a little bit more. But it has been a long, hard sell.

the vision

I said- O.K., fine, I understand what some of you guys are saying, I know this is your bread-and-butter, getting physically involved in the game. What we're going to try and do is work both. We're going to play an aggressive fore check, but at times in the game we're going to go to this contained fore check. Now how does that sound? That sounds good! Now, then I had the guys who wanted to get in there and hit, thinking it was great, and the guys that recognized the other aspects of the game thinking- O.K., that makes a little bit of sense. So that's where we are now, we are in kind of a situation where we interchange our forechecking a little bit. Things have come around quite a bit since then. And I think the guys sense now that I made an adjustment for them.

the vision

Here's the direction that I want you to follow, there's going to be some plusses and minuses for all of us, and we aren't going to, it's not always going to be a strait line, but we are going to get there, now here are the things that I think you have to do to get there. This is how we are going to do them, and to maybe narrow it down – now here's what you have to contribute as an individual. Then, over the course of the season, in hockey, because it is a long year, start to clarify for each athlete what his contribution has to be in terms of fitting in to what the group is trying to accomplish.

the vision

Over the years I think that part has become much easier. I think the perception that athletes have had of me here at Nate over the last three or four years is much different than the perception that the athletes had during my first three or four. I have spent a lot more time trying to sell then, than I do now, and part of that is they come in knowing

that we have been successful. In some senses that has them coming in saying, well he's been pretty successful, I don't think I should be the guy to question what he is doing here. They follow a little more willingly, sometimes maybe too much so, there is some benefit in people questioning what you are doing sometimes because it maybe gives them a solid commitment once they do choose to go because they have thought things through. Certainly, maybe it's old age too, I've been here long enough that people have bought in a lot, and a lot more simply than they used to.

the vision

Initially if you have lost every game on a 6 game road trip it tends to catch up with you and you don't see things as positive. But as far as preparing for the game, your focus from the beginning is what kind of team do you want, hard working team, that you generate from your work outs and your practices, eventually that everybody believes that to play, that is the kind of effort they have to have.

the vision

That was the first sign that I would adjust for the players, and that I was really going to be a good listener. It made sense to me, and I said to them- I said guys, this makes a lot of sense to me. Now that you mention it, there's 5 or 6 guys in this room- that is your game. And if I've taken that away from you, then here's what we're going to do. We're going to have to be able to make that change, though, to read the score in the game, the time in the game, the number of games were playing in successive nights, all those kind of things. They've been pretty good so.

use of a training plan

I sit down every year in the off season and I do up a yearly training plan- I always have. It's very flexible- but I do up a yearly training plan where I take a large piece of paper with all my scheduled games on it, with all my training times, my rest times, I put all my sport psych things that I want to introduce, and when I think they would be most effective. I put our training program off ice in there.

use of a training plan

Practice always goes about what you think your team needs the most to improve it. If your idea of success in hockey is good defensive hockey, you are going to spend a lot of time on defensive work. Only problem about defensive work in practice is that it means a lot of hard work, it means one on one battles, it means a lot of physical contact - you can only do that at a certain time of the year, like I said, I am not sure you can do a lot of one on one work and battles in practice, like when you get to January and February because there is an element of fatigue, already you will have played over 40 games, that is a grind, so how do you implement it? You try to use it at the best time possible, meaning that if you have a stretch of 2 or 3 days off, and you feel it is important to work on one on one contact, or one on one battles, you are going to want to integrate it where you know you have got a couple of days to recover.

use of a training plan

So there is something to hang something on, maybe we can eventually turn it around and if we start scoring a little bit more, more consistent manner maybe we will change it around and get back winning. That is the big thing. I think you do plan your year, actually you plan every month, how many games you have in that month, where would be the time where your players are going to need rest and when do you give it to them, the amount of quality practices.

use of a training plan

Then we said for games 1 to 20 here's where we want to go, we want to start to develop these areas of our power play, and our off-ice programs now have to accentuate. So we have downstairs on the wall, we have there monthly training schedule. When we change phases, we sit down with the players and meet, and say- now we're going to a second phase, guys. We did more, in the first 20 games, more aerobic training, now, in the second phase, we're going to do a little bit more strength work, and a little less aerobic. They're given that phase, they couldn't conceptualize the whole thing, they couldn't see the whole seasonal plan, but they can understand what a phase means, and why that phase fits that particular part of the season. So long as I keep them up to date with that, I'm O.K.

use of a training plan

The players are aware of phases of the plan. When we started out, I told them that we had a yearly plan, I told them, I don't have a whole year of experience under my belt, but I have got a plan, and this is a first phase. So the first phase being training camp. The emphasis there was on developing team play, and fitness, those 2 aspects.

use of a training plan

We use a 10 game phase, and it seems to work pretty good. Every 10 games, I have a plan for 10 games, I've got those 10 games marked down in my schedule, our training times, who we're competing against, our home and away games, our travels marked in there. And I have a plan for those 10 games, in terms of what we want to try and accomplish, objectives in terms of wins and losses, and those kinds of things. But, also, we have a goals for and against, in our 10 game segments. Those types of things.

use of a training plan

All of them, I think, are aware of where they're trying to go, but not many of the guys keep a log, I think there might be one or 2 players that keep a log of their off-ice training- we do keep a log of their off-ice training. That we record all the time. But I don't think players do, I think it's a good idea, but I haven't asked the pro players to do that yet.

use of a training plan

Yes, I do have an overall plan that we try to follow each year. Probably where that plans even more focused is in terms of goal setting and behavior that's not necessarily associated with the physical skills of play but more associated with the mental skills. I

think I'm much more cognoscente of directing that part of my year plan than I am the physical part. I think day to day I have a pretty good feel for how much time we have to spend on each thing and I think that I've evolved as a coach to the point where we do create good flow in practice, we do create a good conditioning environment, we do cover most of the important skills, we are focused on and getting across the things that we need to in team play. I'm not usually too worried that I'm missing things there, but I am worried that I might miss things in terms of the mental development, the overall focus, the direction that we're talking. I'm really trying to be conscious of that.

use of a training plan

I think that the players know that there are areas of our game that are not good, so they sense that this is what I am working on. I think they read you very well, I mean our plan, in terms of off-ice training, they understand exactly why it's there every day. They know that we are on a certain phase right now- strength training, so that makes a lot of sense to them. This month they know that's the emphasis.

use of training plans

I've seen some segmented plans drawn up, and I think that's a great idea, but I didn't segment it by month, but I had the things that we wanted to get done, and I tried to plan about a week ahead, but with enough flexibility so that I could adjust. Daily practices and plans, I've still got a couple boxes of them. The daily plans you write out, and Xerox them and give them out, so that each assistant had one. I don't think that was a standard practice, it may well be now. It may well be

use of video in game preparation

It is, the biggest part of my job is really watching video every day- I watch about 4 hours a day in video. It's either pre-scouting, or it's reviewing our game tapes- that's a big part of my job.

wallowing

But I think wallowing is important, because it gives you, the coaching staff, a chance just to really rag out on some guys that aren't playing well, amongst yourselves, not at them. It allows you to say- god, what are we doing with this guy? is he ever going to get any better? he's the horses' ass I'll say- what can we do differently? -Nothing, we've tried everything. Finally we'll come around. So something comes out of it. This wallowing exercise, believe me, is more than just venting your frustration, some solutions arise from that. And that's a very important coaching endeavor, our wallowing sessions.

wallowing

Once in a while, as much as I try, sometimes it bothers me- I go home, and I'm not in a great mood. But I've got better and better at it as I've gone along. Mainly because, through experience, you just learn that you've got to do that, it's best for you to do that. I have an exercise I call wallowing. Coaches love it. Wallowing is when you go out after a game, win or loose, and you hack your players apart. You have a pizza and a

beer, and you just crucify every player- God, so-and-so, I'm tired of this. You have a session where you rip your team apart. You're looking for all the weaknesses in your players, and everybody's negative. God- the next day, you feel great! Because you've all vented everything out, over that pizza and beer. I call it wallowing, wallowing in shit, you can print that if you like.

wallowing

What it does, to, is it makes you realize that the other coaches on your staff are also reacting very similarly to you, in many circumstances. As much as you communicate with your other coaches, they have got other things they're doing as well. So it's another form of communication, where you think, gee, I didn't know Jamie ever thought about those kinds of things. So it's good. It's good for you, to get to know your coaches better.

winning: post-game evaluation

The euphoria of winning always takes care of most, occasionally after that euphoria dies down you might say to the players – we would like to talk to you for a few minutes after you've had a chance to change – 20 minutes from now we want to chat for a few minutes, and it maybe a reminder of something that we didn't do very well in the third period, generally it's not, because you talk about that the next game, but more than likely, it would be a reminder about the importance of the game tomorrow, or the importance of something that's coming up

winning: post-game evaluation

Winning, theirs not many problems, you give the players a couple of minutes to themselves, our players developed this little victory song that they have had for years now, that takes them a minute or so. I hear other teams doing it now, I think that's one of the things that originated – some of the team, I used to try and get the doors shut really quickly because, depending on when you're playing, you get the team filing into the dressing room, and they start the hum, the last five guys getting into the room, they're waiting for everybody to get into the room, to get ready for this song – this song isn't a very nice song anyway, in terms of lyrics – you don't want young kids to hear it. I always try to get the door closed quickly if we're somewhere where theirs kids around, or sometimes if the opposing team – in our rink the opposing team is on the other side, if your the visiting team, and the dressing rooms are close together, and this song gets going, and the other team is saying OK, those guys are singing tonight, but they wont be singing tomorrow night.

Appendix B

Count of the Number of Meaning Units per. Content Label

Content Label	Count
maintaining emotional control during competition	13
the vision	11
gaining the confidence of the players	10
painting the big picture	10
use of a training plan	10
dealing with players between periods	7
dealing with players fairly	7
different coaching styles	7
goal-setting	7
pre-game talk	7
practicing for game situations	6
role of assistant coach	6
communicating with players	5
innovations	5
loosing: post-game evaluation	5
player evaluation	5
players' pre-game preparation	5
post-game summary	5
coaches' personality	4
coaches' pre-game preparation	4
feedback from assistant coaches between periods	4
between periods improvement points	3
coaches' pre-game rituals	3
cycle of playing - practicing in university	3
dealing with players' perceptions	3
dealing with winning and losing	3
focusing on the game during competition	3
getting the best out of everybody	3
making adjustments between periods	3
practicing at game speed	3
scheduling	3
wallowing	3
base practice on previous game	2
coaches' mental preparation	2
effects of a brawl on team unity	2
importance of coaches' preparation	2
practice plans	2
pre-game warm-up	2

Content Label	Count
preparation for competition through video	2
superstitions	2
winning: post-game evaluation	2
being the hardest working team	1
benching players	1
building a training plan	1
creating a flow to practice	1
creating the right coach-player environment	1
effects of bonding on team building	1
evaluating coaches' performance during competition	1
finding coachable moments	1
focusing on your own team, not the opposition	1
getting the most from your players in practice	1
importance of teaching cues, orchestration	1
keeping a log book	1
keeping past training plans	1
knowing when to work and when not to work in practice	1
making adjustments during competition	1
non-verbal communication during competition	1
opportunities to teach in game situations	1
over use of video in team preparation	1
reading your team	1
role of the coach in team building	1
self evaluation of coaches' performance	1
teaching points	1
use of video in game preparation	1

Appendix C

Matrix of Similarity Judgements

CONTENT LABEL

1	best practice of previous game	1
2	being the hardest working team	2
3	between periods improvement points	3
4	building a training plan	4
5	coaches mental preparation	5
6	coaches physical preparation	6
7	coaches pre game routine	7
8	communicating with players	8
9	creating a flow to practice	9
10	creating the right coaching environment	10
11	types of playing - practicing in university	11
12	dealing with players between periods	12
13	dealing with players in the locker room	13
14	dealing with arriving and leaving	14
15	different coaching styles	15
16	a focus of a brand on team unity	16
17	a focus of building on team building	17
18	a focus of building on team building	18
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