

# バスケットボールにおけるコーチの知り得ない選手の潜在意識と競技成績との関連の経時的変化 - テキストマイニングを用いた A 大学バスケットボールチームの事例

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## 【要旨】

本研究は、テキストマイニング手法を用いて、選手の潜在意識と競技成績の関連を経時的に示し、コーチの知り得ない意識変化を検討することを目的とした。対象は、A 大学バスケットボール部の3年間で、部に所属した延べ 90 名の部員から得られたテキストデータである。得られた語句は、名詞、形容詞、動詞に分類したうえで頻度の高い語句を抽出した。分析方法は、 $\chi^2$  検定により頻度を分析し、コレスポンデンス分析を用いて布置を求めた。次に、その距離をもとに階層型のクラスター分析を行い 3 群にグルーピングした。対象チームの競技成績は、「始動期」「向上期」「達成期」と右肩上がりであった。結果、競技成績の向上に伴って「経験」という言葉が著しく増加していた。つまり、選手は経験を重ねることが良い結果に繋がることを潜在的に意識していることが推察された。また、チームの目標を達成できなかったシーズンのレポートから「達成感」と解釈できるクラスターが得られた。これは、チームの目標設定が適切ではなかった可能性があると考えられた。最後に、唯一対比したクラスターである「ベクトルの歪み」と「ベクトルの一致」については、チームの方向性の不一致を示したと考えられた。

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## **Change over 3 years in the association between basketball players' latent consciousness that their coaches were unaware of and the team's game performance: using text mining in a case study of a university basketball team**

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**[Abstract]**

The present case study examined changes in players' latent awareness, unknown to their coach, based on improvements in their game performance over three years. Text mining was used in order for the latent awareness to become evident. The participants were 90 university students who had been members of the basketball club at A-university for three years (34 were in their first year, and 28 in their second or third year). Each year, in meetings held after the end of the season, the players were asked to write a report on the topic of "Looking Back On the Season." The words used were extracted using text mining, and then were classified as to whether they were nouns, adjectives, or verbs. In order to examine the most frequent phrases that they were used in, cross-tables between nouns and verbs, nouns and adjectives, and verbs and adjectives were compiled, and correspondence analysis applied. This revealed a two-dimensional configuration that showed the relation between two pairs of three parts of speech. Hierarchical cluster analysis was conducted based on the distance between each word in the configuration. The chronological change in the obtained clusters according to game performance of the team was investigated. The following findings were obtained: The examination of the nouns that expressed interest and attention revealed an extremely large increase in the frequency of the use of the word "experience" in relation to improvements in game performance. From this, it was inferred that the players were latently aware that an accumulation of experience leads to a successful result. From that, it was concluded that coaches need to make plans so that their players accumulate experience.

Words such as "feeling," "target," and "individual" which were not found to be factors in interest and attention were not easily influenced by game performance; it was concluded that the members of the team were always aware of them.

Hierarchical cluster analysis found a cluster that could be described as "a sense of achievement". This came from reports about a season in which the team's goals were not achieved. It seemed possible that the goals set for the team might have been unrealistic. The conclusion was that goal setting might need to be gradually increased. The two clusters relating to "agreements and disagreements about the direction of the team" were found in all three seasons examined. The game performance of the team did not achieve its goals in terms of progression when there was a discrepancy in team direction, but the team did fulfill its goals when the team's direction had been agreed to. From that, it was concluded that coaches need to agree with the direction of the team.