

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 1 部復帰への要因分析

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【要旨】

本研究は, テキストマイニングを用いて A 大学が 1 部に復帰した要因を明らかに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 34 名で, 選手が自由記述方式により作成したレポートをテキストマイニングし, 語句を抽出した. 得られた語句は, χ^2 検定により頻度を分析し, コレスポネンス分析を用いて布置を求めた. さらに, クラスタ分析を用いてグルーピングをおこなった上で, 指導者をもつ指導方針である「①目標へ向かう方向性の一致」「②守って走るスタイルの確立と円滑なゲームメイク」「③フィジカルの強化」との対応を検討した. 結果, 多くのレポートが, 「昨年」と「今年」を比較する構成になっていた. つまり, 指導者が新しいチームで指揮を執る際には, 昨年と比較されることを受け入れる姿勢が必要である. さらに, 指導方針である「3 つの柱」と得られたクラスターについて, 概ね一致していたが「②守って走るスタイルの確立と円滑なゲームメイク」については, 一致しないところもあり, 指導上の改変の余地を残した.

本研究の結果は一大学チームの事例報告の域を出ないが, この方法論の提案は今後もコーチング現場に根付いた, 固有の有効な手法となる可能性があると言える.

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Text mining using factor analysis: Regarding A-university's basketball team's return to Division I in the B-district basketball league

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[Abstract]

The present study used text mining to investigate factors relating to A-university's basketball team's return to Division I in the B-district university basketball league. The

participants were the 34 members of A-university's basketball team. After the league championship games were over, text mining was used to extract words from reports that the players on the team wrote reflecting on the basketball season, using a free-response format. Word frequencies were analyzed using chi-square tests, and correspondence analysis was conducted in order to obtain a configuration of the extracted words. In addition, grouping of words in the configuration was conducted using hierarchical cluster analysis. The results were then compared to the three mottoes that the team's coach had advocated: (a) all members strive toward the same goal in the same way (Policy 1, P1), (b) establishment of the team style of quick offense after a strong defense and smooth game leading (Policy 2, P2), and (c) improvement of physical fitness (Policy 3, P3). The following findings were obtained:

- 1) Many of the players' texts consisted of a comparison between last year and this year. This seems to indicate that when a new coach starts to direct a team, the coach needs to be able to accept criticism that compares the new coach with previous coaches.
- 2) The frequency of the use of the word "team" as the noun showing the participants' interest and attention increased with the student's year at the university. This may be a characteristic of university student sports when seniors are winding up their athletic career.
- 3) In general, the factors relating to a return to Division I that were obtained in clusters of words in the configuration were matched with the coach's three mottoes, except for Policy 2. Although the coach had obviously tried to convey this policy to the players, it did not appear to have spread throughout the team. Thus, there is room for improvement regarding this policy.

Finally, although the results of the present study cannot be generalized beyond the scope of one university's basketball team, the methodology may be useful and original for other coaching situations.