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What is the Motivation to study Laws of the Game and Competition Rules in National Portuguese Football Referees?

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Abstract

The success of soccer referees is linked to several skills, including game knowledge, communication, strategic leadership, physical fitness, and psychological ability. During the game, referees make between three and four decisions per minute, paying attention to the multiple aspects of the game, which generates pressure and stress, meaning that the referees must master the laws of the game and competition rules (LGCR). The present study aims to understand the state of the motivation of Portuguese referees to study the LGCR and the dimensions that affect this motivation. One hundred and seventy-nine referees completed the Academic Motivation Scale, adapted to football arbitration, in order to assess amotivation, extrinsic motivation, and intrinsic motivation. Data were treated applying several statistical techniques that highlight multiple linear regression, which enabled testing a measurement model of the motivation of the referees to study and learn the LGCR according to the research objectives stated. The results show that although most of the members are motivated to study the LGCR, there is a small group that presents a deficit in motivation. The multiple linear regression model showed that referees are more intrinsically motivated than extrinsically, showing that they can motivate themselves more than to undergo external influences. A central finding of the paper is that the football referees show a high degree of autonomy, self-control, and determination to study the LGCR.

Keywords: *academic motivation scale, amotivation, intrinsic motivation, extrinsic motivation, laws of the game, competition rules, football referees*

Introduction

Several factors influence the process of learning a specific skill or subject of knowledge; one of the most predominant of these is motivation (Deci & Ryan, 2012). Motivation is closely related to the intensity, direction, strength, and frequency of a particular type of behaviour to achieve a particular goal (Reeve, Jang, Carrell, Jeon, & Barch, 2004). The motivation to learn is usually addressed in the literature through the use of scales based on the Self Determination Theory (SDT) of

Ryan and Deci (2000). Consequently, the learning process primarily results from the motivation to study, and previous research has revealed that there is a three-dimensional approach resulting from the relationship between amotivation (AMOT), intrinsic motivation (IMOT), and extrinsic motivation (EMOT) (Eryilmaz & Mammadov, 2016).

Motivation is considered one of the critical indicators for individuals to succeed in the learning process, boosting efforts through the intrinsic and extrinsic motivation to reach



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a particular goal (Martin, 2008). Motivation may arise in many ways, but it is usually divided into IMOT (individual desire to achieve something important) and EMOT (a kind of external motivation promoted by others) (Vallerand & Blssonnette, 1992). The motivation to learn results from the SDT continuum and comes from these two types, but can be affected by a third dimension: AMOT (Siemens, Smith, Fisher, Thyroff, & Killian, 2015). An intrinsically motivated individual is one who is engaged in learning for the pleasure it gives him, and because he feels self-actualized in that manner. Contrarily, an extrinsically motivated individual is one who seeks to accomplish less difficult tasks needing to undergo external impulses to motivate himself (Lizzio, Wilson, & Simons, 2002). In this sense, the motivational constructs are related with to the expectation and to the value being that the first ones that allow a greater use (Cerasoli & Ford, 2014). The expectations of individuals about their intelligence and attitude toward success and failure, as well as the influence of past experiences, influence the performance and therefore impact the learning experience (Richardson, Abraham, & Bond, 2012). Success in learning arises through the combination of the individuals' cognitive ability and motivational will, that is influenced by the effort expended and the degree of involvement (Lucas & Meyer, 2005).

Motivation is a dynamic phenomenon that can be measured in different ways according to the people who experience it, being influenced by the expectations and learning perceptions of each individual (Henderson-King & Smith, 2006). According to the SDT continuum, AMOT is the dimension with a lower degree of self-determination, autonomy, and sense of control because it refers to the motivation of an individual to perform a given task, EMOT refers to external motivation to promote concretization of an objective, and finally IMOT as the form of motivation with a higher degree of self-determination, autonomy and sense of control as it occurs when a specific individual engages in an activity by choice and personal interest (Ryan & Deci, 2000a). In this sense, being intrinsically motivated, the quality of behaviour is more positive than being extrinsically motivated (Deci & Ryan, 2000). When the satisfactory performance of a given task is evidenced, and no extrinsic motivation is necessary to leverage behaviour to the extent that the existence of incentives, the individual feel intrinsically involved (Dysvik, Kuvaas, & Gagné, 2013). The concept of AMOT proposed by Deci and Ryan (1985) emerged in order to understand human behaviour better, relating it to the conditions of discouragement, indifference, disinterest, self-disrepute or depression (Barkoukis, Tsorbatzoudis, Grouios, & Sideridis, 2008). Thus, AMOT reflects a state of unwillingness to accomplish a particular task because individuals do not feel capable of or interested in achieving a goal (Ryan & Deci, 2000c). This highlights that there is a lack of expectation between actions and results since the subject shows little interest in dealing with a task, showing disbelief in the outcome as a result of the feeling of disability and incompetence (Ryan & Deci, 2000b). In this sense, Deci and Ryan (1985) also revealed that AMOT stems from the regularity of failure, which means that it is assumed that the desired outcome is unattainable, or the result of negative feedback.

The IMOT measures the degree of commitment with a task in which internal reasons, curiosity and the challenge: in essence, participation in which the task is an end in itself

intrinsically related to the will of the individual (Pintrich, 2003). This type of motivation is related to involvement in activities for personal reasons for which feelings of pleasure increase participation (Cerasoli & Ford, 2014). IMOT is composed by the Intrinsic Motivation for Knowledge (To Know - IMTK), Intrinsic Motivation for Realization (To Accomplish - IMTA) and Intrinsic Motivation for Experimenting with Stimulation (To Stimulate - IMTS) (Deci & Ryan, 2008).

EMOT is related to the degree of participation of an individual in a given task, not by his own will but for external reasons, rewards, advantages related to his performance, or competition, being the learning a mean to achieve a particular purpose or goal previously delineated (Deci & Ryan, 2000). EMOT comprises four levels that are presented in the SDT Continuum in a growing form of self-determination through Extrinsic Motivation External Regulation (EMER), Extrinsic Motivation Introjection (EMIN) and Extrinsic Motivation Identification (EMID) (Deci, Koestner, & Ryan, 2001).

Motivation is one of the factors that can influence the individual ability to achieve success, increasing general well-being and professional achievement (Froiland, 2011). In this sense, reducing the levels of amotivation is essential for results, and there is a need to focus motivation in the learning process to achieve goals (Kim & Pekrun, 2014). Based on this theoretical background, it seems necessary to understand the levels of motivation of the Portuguese referees of the national championships to study LGCR, and which dimensions directly affect this motivation. In order to respond to the defined objective, two research questions were defined:

- What is the motivation of the Portuguese referees to study the LGCR?
- What are the dimensions of motivation that directly influence the will to study?

Methods

Participants

One hundred and seventy-nine referees aged between 20 and 44 years old (72% males/28% females) participated in this study. The referees filled the AMS scale during the recycling and evaluation actions, performed every year at the beginning of the season, aiming to evaluate the technical and physical performance of referees. Additionally, referees receive information about the guideline procedure in order to standardize performance criteria. Informed and written consent was provided to the referees before the beginning of the study. All participants were notified that they could withdraw from the study at any time. The study protocol followed the guidelines and was approved by the Local Institutional Research Ethics Committee and conformed to the recommendations of the Declaration of Helsinki.

Procedure

A quantitative study was carried out, collecting data through a questionnaire survey using the AMS scale of Vallerand et al. (1992) adapted for arbitration. The AMS has been translated and adapted to test the motivation of Portuguese referees that perform at the Portuguese national level. In that sense, the main issue of the original AMS "Why do you go to college?" Has been translated and adapted to "Why would I spend my time studying Laws of the Game and Competition Rules (LGCR)? The 28 items of the scale

were translated and adjusted to be used in referees whose learning context was LGCR (Table 1). The adaptation of the scale did not require many changes, and it was adapted to the desired context, using almost equal affirmations in practically all the questions. The original AMS 7-point Likert scale, which varies from “Not fully corresponds to” and “Matched in full”, was maintained, as well as all variables belonging to AMOT, EMOT, and IMOT.

Statistical analysis

The data were treated with the SPSS software 24, applying several statistical techniques that highlight Linear Regression Multiple (LRM), which enabled testing a measurement model of the motivation of the referees to study and learn the LGCR according to the research objectives (João Marôco, 2010). The use of MRL will enable estimating the value of the dependent variable Intrinsic Motivation to Learn LGCR (IMTK) according to the independent variables EMER, EMIN, EMID, IMTA, IMTS, and AMOT. The objective is to find the best possible and statistically significant relationship between variables to estimate the model that best explains the motivation. To evaluate the model, we will use adjustment quality measures such as the Pearson R correlation coefficient, the R² determination coefficient, the adjusted R², the Variance Inflation Factor (VIF) and the Durbin-Watson test (Marôco, 2014).

The study of the group was planned using a research model based on the following model:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k + \varepsilon_i, i=1,2,\dots,n$$

Table 1. Amotivation

Likert	AMOT 1	AMOT 2	AMOT 3	AMOT 4
1	160	167	169	157
2 a 3	16	9	7	17
4	1	0	2	1
5 a 6	2	1	0	3
7	0	2	1	1
Mean	1.17	1.15	1.11	1.22
Total	179 referees ($\alpha=0.858$)			

In fact, when the referees are asked about “Honestly, I do not know. I feel it is a waste of time to study LGCR”, it turns out that at least 19 referees agree that it is a waste of time to study the LGCRs, and 3 out of these 19 even consider that this statement corresponds moderately or very much to their opinion. Regarding the statement, “I cannot understand why I should study LGCR and frankly I do not want to know”, related to the perception of the referees about the importance of the study, it is verified that 12 referees assume not to realize the importance of this study and 3 of these referees cannot understand any importance of studying. As for the statement “I do not know. I cannot understand what I am doing in the arbitration”, which is related to what the referees consider to be doing in the arbitration, it was verified that 10 consider that they do not understand their role within the sector, and that 3 of these referees even consider that they are doing nothing in the industry. Finally, regarding the statement “I’m not sure. I cannot see how LGCRs can be of any value to me”, we note that 4 referees fail to glimpse the importance of LGCRs for their career, with 1 of these referees being sure

The use of SPSS software enabled us to determine which of the introduced independent variables should be included in the regression equation. In this study, IMTK will be used as the dependent variable in the linear regression and the independent variables AMOT, EMER, EMIN, EMID, IMTA, and IMTS. The model of investigation defined was:

$$IMTK = B_0 + B_1 AMOT + B_2 EMER + B_3 EMIN + B_4 EMID + B_5 IMTA + B_6 IMTS + \varepsilon$$

Results

The response options provided through the Likert Scale ranged between 1 to 7, with an average of 4 for a subscale means that the affirmation stated moderately, between 5 and 6 corresponds very much, and 7 corresponds completely. Thus, for the EMOT and IMOT scales, a score equal to or greater than four points represents that the students are more motivated. In contrast, a high score on the AMOT scale means that students are less motivated because the scale, in terms of punctuation, is analysed and defined in an inverse way to that of the EMOT and IMOT scales. Tables 1, 2, and 3 present the results related to the descriptive statistic regarding the motivation to study LGCRs, in relation to the AMOT, EMOT, and IMOT dimensions.

In general, results showed that referees are motivated to study, because mean amotivation rates are very close to the lower limit of the scale. This result was expected since mastering the laws is key to a successful career of any referee. However, an in-depth analysis shows that some responses reveal some lack of motivation (Table 1).

that they are not important.

A general analysis enables us to verify that the vast majority of the 179 referees surveyed are motivated to study LGCRs, but about 10% reveal some lack of motivation for the study of LGCRs as a way to be better referees in the future. This result demonstrates the need to adopt new measures and strategies that aim to reduce as much as possible the amotivation evidenced by this minority.

The average values obtained in the three types of extrinsic motivation are between 3.61 and 6.24; thus, referees are generally extrinsically motivated to study the laws of the game, showing results in the lower limit of scale that represent low extrinsic motivation (Table 2).

The overall results show that there are external factors that motivate referees to study the LGCRs, engaging in the study of third-party influences. However, as already mentioned in the previous scales, it is necessary to understand if there are individual situations in which EMOT does not meet the average standards already presented. A more in-depth analysis showed that some referees are not extrinsically mo-

Table 2. Extrinsic Motivation

Likert	EMER 1	EMER 2	EMER 3	EMER 4	EMIN 1	EMIN 2	EMIN 3	EMIN 4	EMID 1	EMID 2	EMID 3	EMID 4
1	7	1	24	33	16	10	25	6	2	1	1	1
2 a 3	19	7	26	48	43	24	42	10	3	4	4	2
4	35	15	29	40	33	37	27	26	17	13	7	7
5 a 6	78	97	72	47	75	90	66	87	87	99	99	79
7	40	56	28	11	12	18	19	50	70	62	68	90
Mean	5.06	5.76	4.45	3.61	4.20	4.77	4.11	5.41	5.90	5.92	6.03	6.24
Total	179 referees ($\alpha=0.810$)				179 referees ($\alpha=0.887$)				179 referees ($\alpha=0.863$)			

tivated to study and learn the LGCR. This result is not unexpected since the refereeing career is markedly individual, creating in the referee a habit of managing his motivation and of achieving individually, without much external interference. In this sense, it is crucial to understand the individual values reported by the referees regarding the various dimensions of EMOT. Relatively to the extrinsic external regulation motivation (EMER), recognition for performing with the objective of avoiding possible punishments or obtain advantages/rewards of the accomplishment task, not all referees have been shown to be influenced by external factors. Regarding the statement “Because if I do not get a good grade, I will not be able to be a better referee in the future”, we find that 26 referees do not consider a good grade in a written test as an important external factor that convinces them to apply it, in the study of LGCR.

Regarding the question “To achieve a career with more prestige in the future”, only 8 referees show that they are not influenced extrinsically by the preponderance of the LGCR study in their future career. Concerning the statement “Because I want to have a better life in the future”, a surprising 50 referees say that the influence of studying LGCR and its career consequences are not related to the fact that they want to have a better life in the future because about 28% say that having this life better is not an external influence capable of changing their attitude. Finally, in relation to the statement “To have a better future salary”, 101 referees reveal that money is not an external influence capable of convincing them to apply themselves more in the study of the LGCR. This last result is not surprising, because several studies have shown that the main reasons to the continuation of their career are the passion for the arbitration, the social aspect, and the possibility of maintaining healthy physical activity (Johansen, 2015).

The introjection extrinsic motivation (EMIN) results, which have a higher degree of internalization than EMER, showed the individual acts more by obligation than by his own will. Thus, their behaviour does not result from their own choices but from the pressure of others. In the analysis of the affirmation of the questionnaire “Because when I do everything that is related to the LGCR, I feel important”, 59 referees revealed that doing everything right in relation to the LGCR does not influence them to have a feeling of importance, which reveals that the LGCRs for these referees are not preponderant to their visibility as referees. Regarding the statement “Because I want to show to others (managers, coaches, colleagues, family, friends) that I can be good in LGCR”, this kind of extrinsic motivation coupled with the need to show third-party skills is something that is associated

with the referees because they are constantly being evaluated. However, 34 referees have revealed that the opinion of these people is not essential for them to be motivated to study the LGCR. Some referees even reveal that these people do not have any influence on their willingness to perfect their skills in the study of LGCR. The analysis of the statement “To show to myself that I am an intelligent person” showed that 67 referees do not see any relation between the study of the LGCR and this conclusion. However, 37.5% revealed that they did not need to show anything themselves related to the LGCR domain. The last statement of the EMIN dimension was “Because I want to show to myself that I can do everything that is related to the LGCR”, which showed that 9% of referees who responded to the study considered that mastering LGCR is irrelevant.

Extrinsic motivation by identification (EMIN) occurs when the individual identifies with the activity that will be performed, demonstrating a high degree of self-determination, sense of control and autonomy in the actions. Regarding the study of the LGCR, this can occur when the referees identify with the activities inherent to the study, accepting them voluntarily by regulating their behaviour to perform them properly (Deci et al., 2001). This is the closest dimension of IMOT's motivation, so the degree of self-determination and autonomy becomes stronger.

Regarding the statement “Because I think the LGCRs can help me better prepare for my future career as a referee”, we find that only 5 referees have shown that they are not influenced to study LGCRs when they think it might be in their best interests. Regarding the statement “Because studying LGCR will be useful in the future” and in line with the previous one, only 5 referees stated that they did not allow themselves to be influenced by the usefulness of the LGCR in their future sport. In the same line, the statement “Because I believe that the LGCR will improve my competences”, only 5 referees considered that the study of the LGCR does not interfere in the improvement of their competences as a referee. Finally, the statement “Because what I will learn in LGCR will be of great use throughout my career as a referee”, presents the best results of extrinsic motivational influence by identification, since only 3 referees considered that learning LGCR is not very useful for your career. The obtained results in the EMID dimension are in agreement with the literature that affirms that this type of EMOT is the one that is most related to the individual motivation (IMOT) of an individual to perform an activity in an autonomous and self-determined way (Vansteenkiste, Lens, & Deci, 2006).

On the IMOT scale, higher results are linked with more

Table 3. Intrinsic Motivation

Likert	IMTK 1	IMTK 2	IMTK 3	IMTK 4	IMTA 1	IMTA 2	IMTA 3	IMTA 4	IMTS 1	IMTS 2	IMTS 3	IMTS 4
1	0	3	2	2	5	1	3	1	5	3	12	15
2 a 3	14	21	4	11	12	14	1	15	10	14	30	32
4	32	27	16	18	21	22	6	21	32	23	40	40
5 a 6	102	99	110	105	112	99	80	98	105	116	86	84
7	31	29	47	43	29	43	89	44	27	23	11	8
Mean	5.34	5.18	5.76	5.58	5.29	5.53	6.18	5.51	5.21	5.25	4.43	4.30
Total	179 referees ($\alpha=0.850$)				179 referees ($\alpha=0.800$)				179 referees ($\alpha=0.833$)			

intrinsically motivated referees to study LGCR. The mean values ranged from 4.30 to 6.18, showing referees to be intrinsically motivated to study game laws (Table 3), which means that the referees study the LGCR of their own free will, engaging in the study for personal reasons and for pleasure.

Regarding the IMTK, when referees are questioned about “Because I feel pleasure and satisfaction when learning new things related to LGCR”, we have verified that 14 referees say that this statement does not correspond or corresponds little of what they feel. Every year there are news and changes in the LGCR; thus, it is not positive that 8% of the referees who are not interested in these contents. The statement “For the pleasure that I have when I discover new things related to the LGCR that I had never learned before”, the results are in line with the previous answers, showing that 24 referees indicate that they do not feel any pleasure in learning new things related to the LGCR. When the question is related to “For the pleasure I have in improving my knowledge about LGCRs” it turns out that 6 referees reveal that they have no pleasure in being better at LGCRs, revealing that improving knowledge in this area does not give them any motivational feeling. Finally, with regard to “Because studying LGCR allows me to learn many things about this area” 13 referees say that studying the LGCR does not allow them to learn something about the area revealing that it is not the LGCR that will make them know more nor interfere in their performance.

Relatively to the Intrinsic Motivation for Realization - To Accomplish - (IMTA) the analysis of the affirmations allows us to verify the desire of the referees to perform a certain activity for the pleasure and satisfaction felt. The question “For the pleasure and experience in overcoming myself in the learning of the LGCR” showed that 17 referees refer to not having great pleasure in the learning of the LGCR. The responses to the statement “For the satisfaction I feel when I solve difficult issues related to LGCRs” showed that 15 referees have not shown any satisfaction to know how to solve LGCR questions. However, when they are asked about “Why I want to realize from LGCR” only 4 referees refer that it is not important to realize. When we address the question “Because I feel great personal satisfaction if I understand LGCR” we find that there are 16 referees who do not feel any personal satisfaction in understanding LGCR. In relation to the Intrinsic Motivation to Experience Stimulate - To Stimulate - (IMTS) that measures the desire to perform an activity that stimulates the individual that dedicates to it, we find that the referees present individualized results.

Regarding the statement “For the pleasure and motivation I experience when I communicate to others ideas about

LGCRs,” it turns out that 15 referees do not assume any sense of pleasure and motivation in communicating ideas to their peers about LGCRs. Regarding the statement “For the pleasure I experience when I learn how things work due to the interference of the LGCRs”, 17 referees do not give importance to the experience of learning from the domain of the LGCR nor feel any pleasure in this experience. The response to the statement “For the pleasure I experience when I feel completely absorbed in what the leading authors who have studied LGCR wrote” shows that 23% of the referees who stated that everything they read about LGCR does not give them any pleasure. The statement “Because of the high feeling I experienced when I read several interesting studies on LGCR”, shows similar results, with 47 referees reporting that reading studies related to LGCRs does not cause them any impact and/or positive motivation.

A general analysis of IMOT allows us to verify that the vast majority of the 179 referees questioned are intrinsically motivated to study the LGCRs, but when we study individually each type of IMOT we conclude that although the overall mean is quite positive, there are individual values that should be carefully analysed.

The analysis of the three types of IMOT shown the lower results, between 4.30 and 5.25, revealing that 17% of referees presented low intrinsic motivation to study LGCR. The higher results presented by IMTK and IMTA, between 5.18 and 6.18, show that the referees have the motivation to improve their knowledge about LGCR.

Finally, we conclude that IMOT and its dimensions have acceptable mean positive results despite some individual cases of very low intrinsic motivation for the study of LGCR.

The LRM results presented the final model: $IMTK = 0.17 + 0.07 EMIN + 0.30 EMID + 0.46 IMTA + 0.49 IMTS$.

The analysis of the final model enables us to verify that the present model with $R^2 = 0.810$ has a very high explanatory power due to the dimensions that constitute it explaining a high proportion of IMTK ($R^2 = 81\%$). AMOT and EMER dimensions did not influence the IMTK of the referees, showing a reduced amotivation (Table 4). The absence of significant relevance of EMER revealed that referees are not influenced by external pressures to study LGCR.

The structural model (Figure 1) shown that IMTK is influenced by EMIN by 7.6%, resulting from external pressure to study. In the same line, EMID influenced 30.9%, presenting that the referees identified the value of the activities resulting from the LGCR study, accepting the importance of the same to their learning and regulating their behaviour for the study (Deci et al., 2001). IMTK is still influenced by IMTA in 46%,

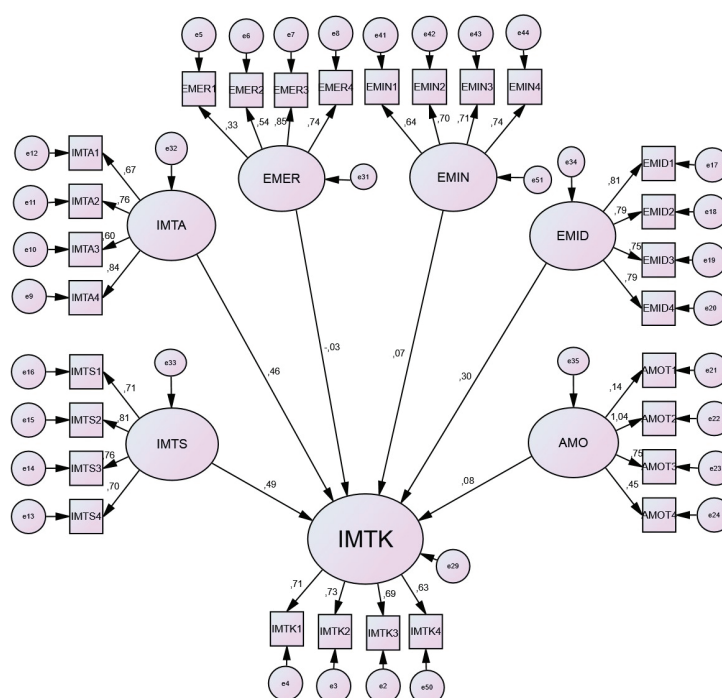
Table 4. Linear Regression Model

Dimensions	Dependent Variable: IMTK			
	Initial Model		Final Model	
	B	t	B	t
(Constant)	-.017	-.05	.17	.74
AMOT	.08	1.09	.08	1.09
EMER	-.03	-.50	-.03	-2.29
EMIN	-.06	-1.722	.076**	4.367
EMID	.26***	4.45	.30***	5.76
IMTA	.33***	5.75	.46***	11.91
IMTS	.49***	11.55	.49***	.74
VIF	[1.20 – 2.84]		[1.63 – 2.72]	
R	.90		.90	
R ²	.81		.81	
R ² a	.81		.81	
Durbin-Watson	1.77		1.75	

Legend: **p<0.05 ***p<0.001

which demonstrates the desire of the referees to study the LGCR for the pleasure, satisfaction and stimulus of learning

that it provides. Similarly, IMTS influenced 49.8% resulting from the intrinsic will to study LGCR (Deci & Ryan, 2008).

**FIGURE 1.** Structural Model

Discussion

The research carried out enables us to determine the motivation of the Portuguese referees, who work in the national championships, to study the LGCR and also the dimensions of the motivation that influence their will to study. In this sense, several dimensions that compose the different types of motivation and demotivation (AMOT, EMOT, and IMOT) were assessed in order to evaluate motivation. Although the results show the presence of small groups that are less motivated to study, the general amount of referees presented positive values of extrinsic and intrinsic motivation, in relation to the study of LGCR. Still, the results seem to present

that the referees are more intrinsically motivated than extrinsically, showing being able to motivate themselves more than to undergo third-party influences that pressure them to engage in this activity. Thus, extrinsic motivation does not affect the need for personal or intrinsic motivation (Ryan & Deci, 2000a). The results of the present study demonstrate a higher index of IMOT than EMOT, corroborating previous research in which AMS was applied to evaluate the motivation for the study (Ratelle, et al., 2007).

The motivation levels show an increase in Ryan and Deci's (2000b) Self-Determination continuum, with the IMOT dimension showing more relevance than EMOT to

the referee's motivation. The use of LRM to estimate the IMTK construction enables verifying that some variables of the initial model did not present statistical significance. We tested a new model by removing the dimensions that had not been statistically validated and obtained a more robust and significant model that explained a good percentage proportion (81%) of IMTK. However, in this new model, AMOT and EMER dimensions did not show statistical significance and were, therefore, removed in the construction of IMTK. The EMID ($\beta=0.30$; $p<0.001$) dimension was the most important dimension for the construction of the extrinsic motivation of referees, followed by the EMIN ($\beta=0.07$; $p<0.05$) dimension. Regarding the IMOT dimension, both IMTS ($\beta = 0.49$; $p < 0.001$) and IMTA ($\beta = 0.46$; $p < 0.001$) were fundamental to the motivation levels, with greater importance to the first. Such results are based on the theoretical SDT support, which assumes that intrinsic and extrinsic motivation may be promoted when basic psychological needs are met (Black & Deci, 2000). The present study showed motivational differences among referees of various national levels. Thus, it is necessary to promote several measures that can increase the levels of motivation of some referees to study the LGCR. Perhaps the emergence of a new way of studying that differs from the traditional and repeated study of books could contribute to a meaningful increase in motivation that could eventually make a difference in the future

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Conflict of Interest

The author declare that there are no conflicts of interest.

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- Froiland, J.M. (2011). Parental autonomy support and student learning goals: results of the referees in relation to LGCR learning. Thus, if the increase in motivation generated is capable of facilitating the learning process, the use of new tools in the near future may be considered to LGCR learning.
- Limitations**
- The present study has some limitations, since the focus of the investigation is only centred on the national championships, excluding the small level referees. However, this research option is linked to the higher LGCR's dominance in the referee's success at the national level. The studies that usually assess motivation used self-reported scores, which may lead to biased evaluation as a result of the lack of self-awareness of the elements studied. The results of the present study were collected at the beginning of the 2019/20 season; thus, several personal and professional phenomena occurred in pre-season may have interfered and influenced some obtained results. Future research should be focused on the replication of the present study, using lower levels referees to perceive the differences of motivation among such different groups. Another proposal may be the study of motivation, differentiating the results in relation to gender, national category, years of national and district career, age and school background in order to assess if the socio-demographic differences influence the motivation to study the LGCR.
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