

The Effect of Social Media Algorithms on the Interest in Exercising Physical Activities for the Students of Sport and Physical Education at the Higher College.

تأثير خوارزميات وسائل التواصل الاجتماعي على اهتمامات طلبة التربية البدنية والرياضية في المدرسة العليا بممارسة الأنشطة الرياضية.

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Abstract

This study aims to explore the impact of social media algorithms in directing the interests of Physical Education and Sports students at the Higher School towards engaging in sports activities. The study adopted a descriptive-analytical approach and was conducted on a sample of 50 male and female students at the Higher School for Teachers in Laghouat, using a structured questionnaire for data collection. The results indicated that social media contributes to enhancing students' awareness of healthy lifestyles and emerging sports.

Keywords Algorithms; Social Media; Physical Education and Sports Students; Engaging in Sports Activities; The Higher School for Teachers.

المخلص

تهدف هذه الدراسة إلى الكشف عن تأثير خوارزميات وسائل التواصل الاجتماعي في توجيه اهتمامات طلبة التربية البدنية والرياضية بالمدرسة العليا نحو ممارسة الأنشطة الرياضية. اعتمدت الدراسة على المنهج الوصفي التحليلي، حيث تم تطبيقها على عينة مكونة من 50 طالبًا وطالبة بالمدرسة العليا للأساتذة في الأغواط، باستخدام استبيان موجه لجمع البيانات. وقد أظهرت النتائج أن وسائل التواصل الاجتماعي تسهم في تعزيز وعي الطلبة بأنماط الحياة الصحية والرياضات الجديدة.

الكلمات المفتاحية: خوارزميات؛ وسائل التواصل الاجتماعي؛ طلبة التربية البدنية والرياضية؛ ممارسة الأنشطة الرياضية؛ المدرسة العليا للأساتذة.

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Introduction

Currently, social media are an integral part of the students' daily life, as they highly shape their interaction with their surroundings and enable them to access information, news, and different materials at any time. In this regard, internet is a giant platform that contains infinite information on different fields, including sport. Besides, it is a tool to develop interests and behaviors, mainly for the sport and physical education students (Anderson, 2021). Facebook, Instagram, YouTube, and Tiktok use advanced algorithms to highly influence the interaction with the content based on their previous preferences and patterns of behavior. These algorithms allow the exact personalization of the content to the users to support their personal interests and identify the quality and quantity of information needed.

Thus, the algorithms directly affect the individuals' interests and behaviors, mainly in sport. For the students of sport and physical education, the algorithms can orient them towards the sport content to foster their interest in sports and motivate its practice. For instance, the interaction with sport posts or following sport pages on social media may increase interest in sports, mainly that the algorithms recurrently post a suitable sport content (Jones et al., 2019). However, the issue is that these algorithms may post content outside sport and diverse information that deconcentrates the students. In some cases, this deconcentration may be the outcome of the excessive diversity of the content that decreases adherence to sport. For example, the students may be exposed to entertaining or general content.

Moreover, the algorithms consolidate this phenomenon if the content is not directed; this increases other interests outside sport that negatively affect the behaviors of sports (Smith & Johnson, 2020). The effect of social media on the students' interest in sports clearly manifests in these dynamics. While the sport content may encourage the physical activity, it may decrease it due to the big diversity of the posted content. Some studies tell that a motivating sport content on social media may be a good cause for students to exercise sport. On the other hand, some other studies show that the excessive use of these tools may decrease the exercise of the physical activities due to occupation with other contents. For example, scholars show that the students who interact with sport content increase their awareness about the benefits of the physical activity and the motivation to do it (Smith & Johnson, 2020). Nevertheless, the increasing interaction with non-sport content reduces the chances of interacting with sport and affects the mental and physical health.

In the current context, many previous studies show that these algorithms highly affect the physical activities of the students. For instance, the study of Calabrese & Della Corte (2021) entitled "Social media as a tool for promoting physical activity among university students: The role of algorithmic content recommendations" shows that the algorithms play a vital role in encouraging participation in the sport activities amid university students. The study shows the importance of the algorithms in motivating students to do sports, and goes with the aims of our study that targets understanding the effect of the algorithms on the behaviors of students regarding sport. Besides, the study of Harris & Thompson (2019), entitled "The influence of social media on physical activity and health behaviors in college students" showed that the social media highly affect the behaviors of the physical activity and health of the university students. In addition, despite the algorithms may cause positive effects when students interact with the sport content, they may bring about deconcentration and increase adherence to a non-sport content. This dynamics suits the problematic of our study regarding the effect of algorithms on the sport trends of the students.

Furthermore, the study of Garcia & Martinez (2020, entitled “Exploring the relationship between social media usage and sports participation among young adults” discussed the relation between the use of social media and the participation in the physical activities amid the youths. Findings show that the algorithms can affect the sport patterns through presenting a continuous sport content that motivates the students to practice sport. The results support our hypothesis that the social media algorithms play a decisive role in fostering the physical activity amid the physical education students.

Our problematic revolves around the effect of the social media algorithms on the inclinations of the sport and physical education students regarding the practice of the sport activities. In this regard, we question the effect of these algorithms on the students’ behaviors, and whether they motivate the students to exercise sport through personalizing the content to their interest or cause deconcentration and increase interest in a non-sport content.

The main question:

“Do the social media algorithms affect the interest in practicing the physical activities for the students of sport and physical education at the teachers’ higher college?”.

The general hypothesis:

The social media algorithms affect the interest of practicing the physical activities for the students of sport and physical education at the teachers’ higher college.

2. Aims of the study:

- Analyzing the effect of social media algorithms on the interest of practicing the physical activities for the students of sport and physical education.
- Studying the relation between the interaction with the sport content on social media and the motivation of students to exercise sport.
- Examining the effect of algorithms in directing the students towards a personalized sport content that suits their personal interests.
- Findings out the effect of social media on the physical activities amid the physical education students, and identifying the factors that foster or restrict the sport practice.

3. The importance of the study:

The importance of the study lies within understanding the role of social media algorithms in directing the interests of physical education students towards practicing the physical activities to improve their sport practice. In addition, the study sheds light on the positive and negative effects of these algorithms on the physical activities to improve the strategies of interaction with the sport content. Besides, the study contributes to developing the methods of using social media to encourage the students’ physical activity.

4. The study concepts and terms

4.1 Social media algorithms:

The algorithms of social media (Facebook, Instagram, TikTok, and Twitter) refer to a set of rules and calculations that direct the content posted to the users based on their previous interactions, interests, and data. These algorithms continuously personalize the content to suit the users’ interests and increase interaction and sharing (Zeng et al., 2021).



The social media

They are digital platforms that allow the users to interact with the others through sharing content (texts, photos, videos, etc) and comments. This interaction includes a collective or individual communication and relies on internet as a communication channel (en, K. K, 2002).



The sport and physical education students:

They are students pursuing studies that train them on how to work in the sport and physical education fields. The curricula cover teaching different sports, improving agility, and introducing the different principles of sport and physical education and training (Basu et al., 2020).

**The sport activities practice:**

It is participation in the physical activities that aim at improving the health and agility. It covers the sport drills, the individual and collective games, and the entertaining sports that improve the mental and physical health (Tremblay et al., 2017).

**5. Methodology:****5.1 Method of the study:**

The study uses the analytical descriptive method that collects data and analyzes them in a methodological and exact method to understand the phenomena and relations between the variables. In our study, it allows analyzing the effect of social media algorithms on the students' inclination towards the practice of sport activities.

5.2 Population of the study:

It includes the sport and physical education students at the teachers' higher college in Laghouat who use social media in their daily lives and follow the sport activities.

5.3 Sample of the study:

The sample includes 50 male and female students majoring in sport and physical education at the teachers' higher college in Laghouat. They have been chosen at random to ensure a diverse representation of the students who regularly use social media to follow the sport activities.

5.4 The study limitations:

5.4.1 The spatial limitations:

The department of sport and physical education at the teachers' higher college in Laghouat.

5.4.2 The temporal limitations:

The academic year 2024/2025.

5.4.3 The human limitations:

The students majoring in sport and physical education at the teachers' higher college in Laghouat.

5.4 The study tools:

We used the questionnaire for data collection. It includes closed questions that aim at exploring the effect of the algorithms on the sport and physical behaviors of the informants, and at analyzing the relation between the effect and the content of social media the informants interact with.

5.5 The psychometric properties:

5.5.1 The face validity:

To ensure the validity of the tool, we used the face validity and consulted 04 teachers specialized in the field. They carefully reviewed the questionnaire and provided remarks about the compatibility of the questions with the topic.

5.5.2 The consistency:

Table 01: The consistency values of each axis and the aggregate of all axes

Variables	Items	Cronbach's Alpha
The whole questionnaire	12	0.609

Source: The outputs of SPSS

Table 01 shows that the coefficient of Cronbach's Alpha for each axis is 0.609, showing a strong consistency. In this regard, Cronbach's Alpha is an important criterion to evaluate the consistency and ability of the tool to measure the concepts exactly.

The intrinsic validity:

It is measured using this equation:

The quadratic root of the consistency coefficient

$$r = \sqrt{0,609} = 0,780$$

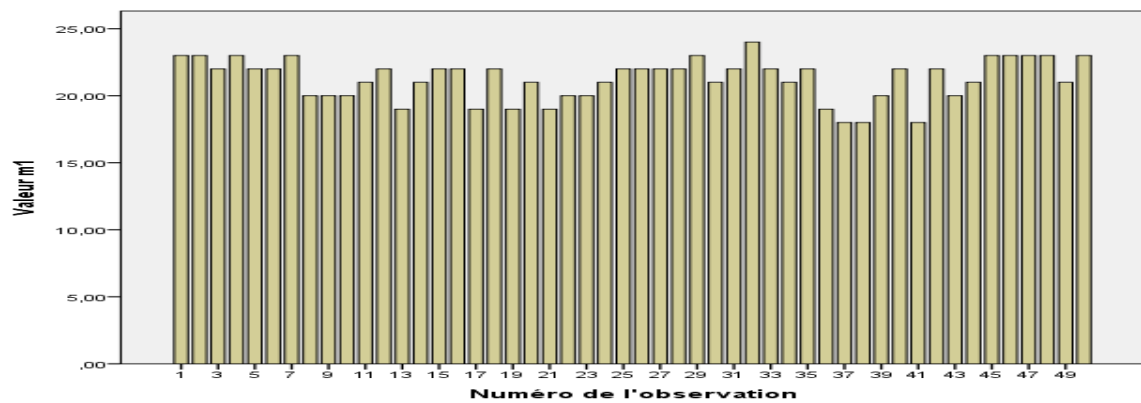
Thus, the validity coefficient is 0.780 and is statistically significant. Therefore, the questionnaire has a high degree of validity and can be applied on the study sample.

6. Presentation, interpretation, and discussion of the results:

Table No°2: The statistical processes

Items	Answers	Percentage	Answers	Percentage	Calculated Chi ²	Table Chi ²	Degree of freedom	Significance level
01	Yes	92	No	08	35.280	3.841	01	0.05
02	Yes	96	No	04	42.320	3.841	01	0.05
03	Yes	92	No	08	35.280	3.841	01	0.05
04	Yes	86	No	14	25.920	3.841	01	0.05
05	Yes	56	No	44	0.720	3.841	01	0.05
06	Yes	84	No	16	23.120	3.841	01	0.05
07	Yes	100	No	00	46.080	3.841	01	0.05
08	Yes	14	No	86	25.920	3.841	01	0.05
09	Yes	80	No	20	18.000	3.841	01	0.05
10	Yes	82	No	18	20.480	3.841	01	0.05
11	Yes	70	No	30	8.000	3.841	01	0.05
12	Yes	74	No	26	11.520	3.841	01	0.05

Source: by the authors based on the outputs of SPSS



1. Do social media affect your sport content?

- **Answer:** Yes (92%), no (08%).
- **Result:** The value of the calculated χ^2 is 35.280, and is more than the table value 3.841. Therefore, there is a statistically significant relation between social media and the sport content.

2. Do you think social media help you discover a sport content that suits your interests?

- **Answer:** Yes (96%), no (04%).
- **Result:** The value of the calculated χ^2 is 42.320, and is more than the table value 3.841. Therefore, there is a statistically significant relation between social media and the discovery of sport content.

3. Do you feel social media with their content motivate you to practice sport?

- **Answer:** Yes (92%), no (08%).
- **Result:** The value of the calculated χ^2 is 35.280, and is more than the table value 3.841. Therefore, there is a positive effect for social media on the sport motivation.

4. Do you think social media direct you towards a sport content that motivates you to improve your agility?

- **Answer:** Yes (86%), no (14%).
- **Result:** The value of the calculated χ^2 is 25.920, and is more than the table value 3.841. Therefore, social media direct people towards a sport content that motivates their agility.

5. Do you think social media deconcentrate you from practicing sport?

- **Answer:** Yes (56%), no (44%).
- **Result:** The value of the calculated χ^2 is 0.720, and is less than the table value 3.841. Therefore, there is no big statistically significant relation between social media and deconcentration from sport practice.

6. Do you use social media in looking for sport drills or training programs?

- **Answer:** Yes (84%), no (16%).
- **Result:** The value of the calculated χ^2 is 23.120, and is more than the table value 3.841. Therefore, there is a big reliance on social media to find sport drills.

7. Do you think social media help you discover new sport activities?

- **Answer:** Yes (100%), no (00%).
- **Result:** The value of the calculated χ^2 is 46.08, and is more than the table value 3.841. Therefore, there is a big effect for social media on discovering new sports.

8. Do you post images or videos of your sport activities on social media to respond to the content posted for you?

- **Answer:** Yes (14%), no (86%).
- **Result:** The value of the calculated χ^2 is 25.920, and is more than the table value 3.841. Therefore, few informants interact through images or videos.

9. Do you feel that interaction with the sport content on social media encourages you to keep doing sport?

- **Answer:** Yes (80%), no (20%).
- **Result:** The value of the calculated χ^2 is 18.000, and is more than the table value 3.841. Therefore, the interaction with the sport content encourages continuity of sport practice.

10. Do you think social media increase your motivation to try new sports?

- **Answer:** Yes (82%), no (18%).
- **Result:** The value of the calculated χ^2 is 20.480, and is more than the table value 3.841. Therefore, social media increase the motivation to try new sports.

11. Does following professional athletes on social media influence your sport interests?

- **Answer:** Yes (70%), no (30%).
- **Result:** The value of the calculated χ^2 is 8.000, and is more than the table value 3.841. This reflects a big influence for following the professional athletes on the informants' interests in sports.

12. Do social media help you improve the level of your physical activity?

- **Answer:** Yes (74%), no (26%).
- **Result:** The value of the calculated χ^2 is 11.520, and is more than the table value 3.841. Therefore, social media improve the level of the physical activity.

Interpretation of the results:

The effect of social media on the interests of sport and physical education students clearly shows the importance of these techniques in shaping the students' physical activity behaviors. The algorithms play a pivotal role in personalizing the content posted to the users based on their preferences and interests; thus, they directly affect their motivation to exercise the physical activities. The previous studies show that these algorithms may be an effective tool in motivating the physical activity, as shown by Della Corte & Calabrese (2021) who discussed the effect of social media in fostering the physical activity of the university students. Besides, they found out that the algorithms can foster participation in the sport activities through providing a sport content that goes with the students interests. This goes with our results, which showed that 92% of the informants feel that the social media foster their motives to practice sport, and that 96% discovered a sport content that suits their personal interests.

On the other hand, the study of Harris & Thompson (2019) stated that the algorithms may have positive effects on the sport activity if the students interact with the sport content. However, the study points that the algorithms may deconcentrate students and increase the potentials of adherence to a non-sport activity. This goes with the results of our study, as 56% of the informants tell that social media distort concentration on sport, reflecting the challenges stated by Harris & Thompson regarding the negative potential effects of the algorithms.

Moreover, the study of Martinez & Garcia (2020) showed a positive relation between the use of social media and the participation in the sport activities for the youth. In this context, the algorithms increase the youths' motivation to exercise sport thanks to the sport content that suits their interests. These results go with our study, as 82% of the informants tell that social media increased their motivation to try news sports, and that 100% discovered new sport activities thanks to the algorithms.

Based on these studies, the social media algorithms highly direct the students' interest in sports. Despite a positive effect on the students' motivation and the increase of sport motivation, the deconcentration and focus on a non-sport content limit the efficiency of these tools. Therefore, our study points that the algorithms highly motivate the students to practice sport and insists on monitoring and organizing the use of social media to avoid the negative effects that affect the efficiency of these tools in motivating the physical activity.

Conclusion:

The study of the effect of the social media algorithms on the interest in sport for the sport and physical education students clearly shows the big and diverse effect of the algorithms on shaping the behaviors towards sport. In this context, the results show that the algorithms personalize the content and play a vital role in motivating students to practice sport thanks to the content that suits their inclinations and interests. This reflects the palpable positive effect on the motivation to practice sport and sport activities.

Despite the big benefits of the algorithms, there are negative ones that appear in some cases, as the algorithms may distort attention, making students immersed in a non-sport content that fosters negative behaviors that affect their healthy behaviors. This dynamics needs a special attention from the sport and physical education experts to ensure the optimal exploitation of the social media. In this context, it is necessary to direct and monitor the use of social media to reduce the negative effects through improving the methods of access to sport content and increasing awareness about the methods of the effective use.

Recommendations:

1. Increasing awareness: It is necessary to raise students' awareness of how to use social media effectively to improve the physical activity. This needs workshops and lectures in the universities.
2. Integrating the educational institutions: The universities and schools must cooperate with the social media to ensure a sport content that motivates the physical activity. These institutions may have a vital role in fostering and directing the content that suits the students' needs and health goals.
3. Making educational programs: It is necessary to develop educational programs on the positive interaction with the sport content. These programs may include advice on how to achieve balance between the sport and non-sport contents to maintain the students' attention and motivate them to practice sport.
4. Analyzing the behavior patterns: It is necessary to make more studies to understand the effect of algorithms on the students behaviors in the long run. These studies help provide recommendations to adjust the algorithms in a way

that fosters the physical activity and avoids the negative effects that decrease the physical activities.

5. Providing a personalized content: It is necessary to encourage the social media to improve the algorithms to provide a sport content that suits the students' sport interests. Such content can help make recommendations based on the personal goals of each student to motivate their exercise of sport.
6. The societal interaction: Encouraging students to interact with the sport content on social media may motivate them for maintaining their sport practices. The challenges and sport competitions may be used on these platforms to increase participation and competition among students and create an environment that encourages continuity in the sport practice.
7. Encouraging the diversity in the sport activities: The presentation of diverse sports on social media encourages students to discover and practice new sports. The diversity in the sport activities motivates students to break the routine sports and increases the chances of exercising diverse sports that suit their different interests.

In the end, the social media algorithms are a strong tool that motivates the physical activity and fosters interest in sport. However, they must be thoughtfully directed to avoid the potential negative effects. From these recommendations, we can achieve the maximum benefits of sport and physical education.

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