

1) 2017年度 本試験 英語【筆記】 第4問 A

A 次の文章はある説明文の一部である。この文章とグラフを読み、下の問い(問 1～4)の 35 ～ 38 に入れるのに最も適当なものを、それぞれ下の①～④のうちから一つずつ選べ。

Physical activity in your childhood, such as playing sports and exercising, can greatly benefit your health when you are older. Therefore, it is important to promote physical activity in childhood for one's good health. The schoolyard is one place where children and adolescents can be encouraged to take part in physical activity. Thus, knowing how schoolyards are used by students may give us some helpful ideas to promote their physical activity.

A study was conducted at four schools in Denmark in order to investigate how much different types of schoolyard areas were used and whether students were active or passive in those areas. In the study, schoolyard areas were classified and defined by their primary characteristics. *Grass* represented playing fields and natural green lawn areas, often used for soccer, but without any marked lines or goals. *Multi-court* referred to fenced areas on various surfaces, like artificial grass and rubber, designed for tennis and other such ball games. *Natural* represented areas with, for example, bushes, trees, and natural stones. *Playground* represented areas with play equipment, such as swings and slides on safe surfaces like sand. *Solid Surface* described the areas with the hardest surfaces, like concrete. These areas were identified by flat open spaces, often having numerous markings painted for games and benches set in different places.

Using GPS devices and other instruments, the researchers measured the lengths of time the students spent in the different schoolyard areas as well as the degrees of their physical activity. Figure 1 displays the average amounts of time spent per day in each area for All students and those averages divided into Children (aged 12 and under) and Adolescents (aged 13 and over). Solid Surface was clearly the area in which All students spent most of their time, followed by Multi-court then Grass. Natural and Playground showed similar averages for All students, with the average for All students in Playground being just over two minutes.

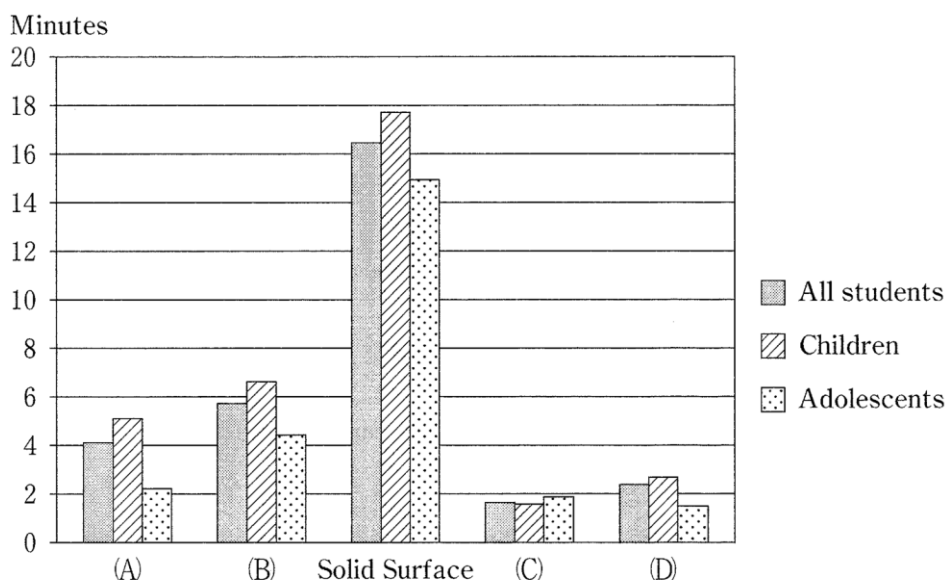


Figure 1. Average times spent in each area by All students, Children, and Adolescents.

Furthermore, the study revealed differences between the average amounts of time spent in schoolyards by Children and Adolescents. In comparison with Adolescents, Children spent more time in all schoolyard areas except for Natural areas. The greater amount of time spent by Children might be explained by the fact that, according to the regulations at all four schools, Children could not leave the schoolyard during lunch time, but Adolescents could when they wanted to.

When looking at the degree of physical activity, researchers discovered differences among the schoolyard areas. Students were most active in Grass and Playground areas. On the other hand, students were quite passive in Solid Surface areas, with Adolescents spending only 7% of their time there being physically active.

The findings of this study show the importance of investigating the potential of various environments and features in schoolyards. To promote students' health, it is also beneficial to observe how varieties of games Children and Adolescents play affect the length of time spent taking part in physical activity. Let us now take a look at these relationships.

問 1 According to the passage, what is the difference between Multi-court and Solid Surface? 35

- ① Unlike Multi-court, Solid Surface contains artificial grass for younger students to play on.
- ② Unlike Multi-court, Solid Surface does not contain boundaries marked for students' games.
- ③ Unlike Solid Surface, Multi-court has a relatively soft surface made of various materials.
- ④ Unlike Solid Surface, Multi-court is not surrounded by anything, which makes it easy to access.

問 2 In Figure 1, which of the following do (A), (B), (C), and (D) refer to? 36

- | | | |
|---|-----------------|-----------------|
| ① | (A) Grass | (B) Multi-court |
| | (C) Natural | (D) Playground |
| ② | (A) Grass | (B) Multi-court |
| | (C) Playground | (D) Natural |
| ③ | (A) Multi-court | (B) Grass |
| | (C) Natural | (D) Playground |
| ④ | (A) Multi-court | (B) Grass |
| | (C) Playground | (D) Natural |

問 3 The main purpose of this passage is to 37.

- ① discuss the benefits of being physically active at school in childhood
- ② give advice to increase the number of physically active adolescents
- ③ introduce schools that encourage students to play on grassed areas
- ④ show that types of schoolyards affect students' behavior there

問 4 What topic is most likely to follow the last paragraph? 38

- ① The benefits of studying various school environments for different activities
- ② The connections between types of games and lengths of time being active
- ③ The influence of the schoolyard environment on Adolescents' physical activity
- ④ The way schoolyard surfaces affect the time spent doing physical activity

2) 解説

問 1 According to the passage, what is the difference between Multi-court and Solid Surface?

「この文章によれば、マルチコートと固い地面の違いは何ですか？」

① Unlike Multi-court, Solid Surface contains artificial grass for younger students to play on.

「マルチコートとは異なり、固い地面にはより若い生徒が遊ぶための人工芝がある」 ない

② Unlike Multi-court, Solid Surface does not contain boundaries marked for students' games.

「マルチコートとは異なり、固い地面には学生の試合用に引かれた境界線がない」 ある

③ Unlike Solid Surface, Multi-court has a relatively soft surface made of various materials.

「固い地面とは異なり、マルチコートは様々な素材で作られた比較的柔らかい地面をもつ」

④ Unlike Solid Surface, Multi-court is not surrounded by anything, which makes it easy to access.

「固い地面とは異なり、マルチコートは何にも囲われておらず、そのため利用しやすい」 囲まれている

A study was conducted at four schools in Denmark in order to investigate how much different types of schoolyard areas were used and whether students were active or passive in those areas. In the study, schoolyard areas were classified and defined by their primary characteristics. *Grass* represented playing fields and natural green lawn areas, often used for soccer, but without any marked lines or goals. Multi-court referred to fenced areas on various surfaces, like artificial grass and rubber, designed for tennis and other such ball games. *Natural* represented areas with, for example, bushes, trees, and natural stones. *Playground* represented areas with play equipment, such as swings and slides on safe surfaces like sand. Solid Surface described the areas with the hardest surfaces, like concrete. These areas were identified by flat open spaces, often having numerous markings painted for games and benches set in different places.

デンマークの4つの学校において、校庭のタイプの異なる領域がどの程度利用され、そして生徒たちはそれらの領域で積極的だったのか消極的だったのかを調べるため、ある研究が行われた。その研究では、校庭の領域はその主な特性により分類・定義された。「芝生」は運動場や緑の天然芝の領域を意味し、よくサッカーに使われるが、ラインもゴールもない。「マルチコート」は、テニスや他の球技用に設計された、人工芝やゴムなどのさまざまな地面のフェンスで囲まれた領域を指していた。「自然」は、例えば、茂みや木、天然石などの領域を示していた。「遊び場」は砂のような安全な表面にブランコや滑り台のような遊具がある領域に相当した。「固い地面」とはコンクリートのような最も固い地面の領域を表していた。これら「固い地面」は、たいてい試合用に描かれた多数の印や、あちこちにベンチが置かれた平らな広場として識別された。

問 2 In Figure 1, which of the following do (A), (B), (C), and (D) refer to? 36

「図 1 において、(A), (B), (C), (D)が指すのは次のどれですか？」

- ① (A) Grass 芝生 (B) Multi-court マルチコート
(C) Natural 自然 (D) Playground 遊び場 (以下省略)

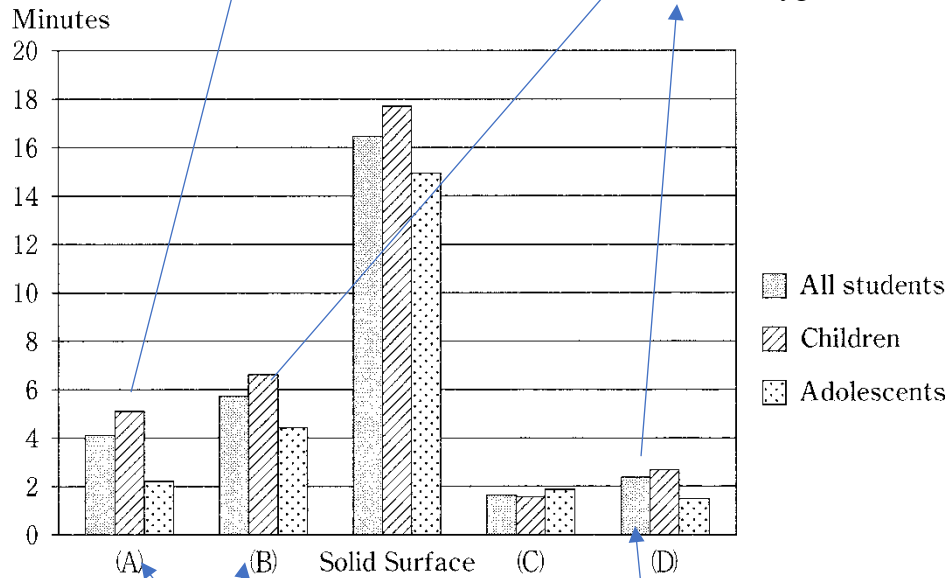


Figure 1. Average times spent in each area by All students, Children, and Adolescents.

Using GPS devices and other instruments, the researchers measured the lengths of time the students spent in the different schoolyard areas as well as the degrees of their physical activity. Figure 1 displays the average amounts of time spent per day in each area for All students and those averages divided into Children (aged 12 and under) and Adolescents (aged 13 and over). Solid Surface was clearly the area in which All students spent most of their time, followed by Multi-court then Grass. Natural and Playground showed similar averages for All students, with the average for All students in Playground being just over two minutes.

GPS 装置や他の機器を利用して、研究者たちは生徒たちがさまざまな校庭の領域で過ごした時間の長さ、彼らの身体活動の度合いを測定した。図 1 は全生徒の領域ごとの 1 日当たりの平均利用時間、および子ども(12 歳以下)と若者(13 歳以上)別の平均値(利用時間)を示している。「固い地面」は明らかに全生徒がほとんどの時間を過ごした領域であり、マルチコート、次に芝生が続いた。「自然」と「遊び場」は全生徒の平均がほぼ同じ値を示したが、遊び場の全生徒平均は 2 分を少し超えていた。

問3 The main purpose of this passage is to 37.

「この文章の主な目的は(37)ことである」

① discuss the benefits of being physically active at school in childhood

「子ども時代に学校でよく運動することの利点を議論する」

② give advice to increase the number of physically active adolescents

「よく運動する若者の数を増やすために助言をする」

③ introduce schools that encourage students to play on grassed areas

「芝生領域で遊ぶことを生徒に奨励している学校を紹介する」

④ show that types of schoolyards affect students' behavior there

「校庭の種類がそこでの生徒たちの行動に影響を与えることを示す」

第2段落 第1文に

A study was conducted at four schools in Denmark in order to investigate how much different types of schoolyard areas were used and whether students were active or passive in those areas. In the study, schoolyard areas were classified and defined by their primary characteristics.

デンマークの4つの学校において、異なるタイプの校庭の領域がどの程度利用され、そして生徒たちはそれらの領域で積極的だったのか消極的だったのかを調べるため、ある研究が行われた。その研究では、校庭の領域はその主な特性により分類・定義された。

問4 What topic is most likely to follow the last paragraph? 38

「最終段落に続く可能性が最も高いのは、何の話題ですか？」

① The benefits of studying various school environments for different activities

「さまざまな活動のための多様な学校環境を研究する利点」

② The connections between types of games and lengths of time being active

「ゲームの種類と活動時間の長さとの関係」

③ The influence of the schoolyard environment on Adolescents' physical activity

「校庭環境が若者の身体活動に与える影響」

④ The way schoolyard surfaces affect the time spent doing physical activity

「校庭の表面(地面)が身体活動をするのに費やす時間に与える影響」

The findings of this study show the importance of investigating the potential of various environments and features in schoolyards. To promote students' health, it is also beneficial to observe how varieties of games Children and Adolescents play affect the length of time spent taking part in physical activity. Let us now take a look at these relationships.

この研究結果は校庭のさまざまな環境や特徴がもつ可能性を調査することの重要性を示している。生徒たちの健康を増進するためには、子どもや若者たちが行うさまざまなゲームが、身体活動に参加して過ごす時間の長さにもどう影響するのかに注目することも有益である。それでは今からこれらの関係を見てみよう。

問題には直接影響しなかったその他の部分

Physical activity in your childhood, such as playing sports and exercising, can greatly benefit your health when you are older. Therefore, it is important to promote physical activity in childhood for one's good health. The schoolyard is one place where children and adolescents can be encouraged to take part in physical activity. Thus, knowing how schoolyards are used by students may give us some helpful ideas to promote their physical activity.

子ども時代におけるスポーツや運動などの身体活動は、成長後の健康に大きな利益を与える可能性がある。それゆえ、健康のために子ども時代の身体活動を促進することは重要である。校庭は、子どもや若者たちの身体活動への参加を促すことができる場所の1つである。したがって、校庭が生徒たちにどのように利用されているかを知ること、彼らの身体活動を促進するための有益なアイデアが得られるかもしれない。

Furthermore, the study revealed differences between the average amounts of time spent in schoolyards by Children and Adolescents. In comparison with Adolescents, Children spent more time in all schoolyard areas except for Natural areas. The greater amount of time spent by Children might be explained by the fact that, according to the regulations at all four schools, Children could not leave the schoolyard during lunch time, but Adolescents could when they wanted to.

さらに、この研究は校庭で過ごした平均時間の子どもと若者での違いを明らかにした。若者と比較すると、子どもは自然の領域を除くすべての校庭領域でより多くの時間を過ごした。子どもが過ごしたより多くの時間については、4校すべての校則に従い、子どもは昼休みに校庭を出られないが、若者は出たいときにえられるという事実で説明がつくかもしれない。

When looking at the degree of physical activity, researchers discovered differences among the schoolyard areas. Students were most active in Grass and Playground areas. On the other hand, students were quite passive in Solid Surface areas, with Adolescents spending only 7% of their time there being physically active.

身体活動の度合いを見て、研究者たちは校庭の領域間の違いを発見した。生徒たちは芝生と遊び場の領域で最も活動的であった。その一方で、固い地面の領域では非常に消極的で、若者たちがそこにいた時間の7%しか身体活動に費やしていなかった。

3) 次回予告

この問題を、大学入学共通テスト風に作り変えてみて、傾向を探り、対策とします。