Utilization of the Strava Application for Reading and Fitness Literacy for Unesa Students

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ABSTRACT

This research aims to describe the use of the Strava application to develop Unesa students' fitness literacy. The method used in this research is qualitative. The results of this research show that the process and results of using the Strava application can develop the fitness literacy of Unesa students. The Strava application can be integrated into the Semester Learning Plan (RPS), as a supplement to teaching materials, learning media, and training guides. This is proven by the results of its use, namely there is a summary of the results of the physical activities that have been carried out. The results of the student's physical activity recap are the result of using the Strava application to develop the fitness literacy of Unesa students from the FISH, FE, FT, FMIPA, and FBS faculties who teach Physical Education and Fitness courses. The results of using the Strava application with a summary of physical activity results starting from distance, time, speed, and intensity of student sports show that students can achieve learning outcomes well using the Strava application so it can be stated that the Strava application can be used to develop the fitness literacy of Unesa students. The result of using the Strava application is the development of student fitness literacy which is proven by monitoring physical activity, consistency and commitment to exercise, analysis of physical activity progress data, selecting challenges and establishing goals, and awareness of the benefits of exercise felt by students after using the Strava application.

Keywords: fitness literacy, utilization, Strava

INTRODUCTION

Physical fitness is an important thing to do. However, busyness is often used as an excuse for limited time for physical activity. For example, the busy academic life experienced by students. Busy lectures mean that students often do not have time for physical activity (Rahmawati & Firmiana, 2021; Anggela, 2016). Therefore, at Surabaya State University (Unesa) there are general courses in Physical Education and Fitness.

The lack of student fitness literacy is a problem that needs to be addressed (Zuriaturizky & Ghasya, 2024). Students need to have an awareness of physical activity. The solution to this problem is the use of the Strava application in this digital era. With the Strava application, students can easily record, find out, study, and carry out physical activities according to their needs and desires.

The features in the Strava application can record and analyze physical activity carried out (Afrianto et al., 2023). This can increase the fitness literacy of Unesa students. There is a lot of information about the various types of physical activities that can be done as well as groups to create relationships among Strava users so that there are friends who can do physical activities together or friends who can discuss the physical activity program they are doing.

These features in the Strava application not only make it easier and increase students' knowledge about physical activity, but can also motivate them to continue doing regular physical activity (Sipahutar et al., 2023). The existence of a physical activity community increases enthusiasm and self-motivation with progress records from recorded physical activity results in the Strava application.

Maintaining physical and mental health can be done by doing physical activity (Rosidin et al., 2022; Lesmana, 2014). High academic demands can make students experience physical and mental fatigue. Coupled with limited time for physical activity between busy lectures,

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students experience an unbalanced lifestyle (Multazami, 2022; Setyawan et al., 2021). This has a negative impact on fitness.

For this reason, the Strava application can be used as a medium to increase the fitness literacy of Unesa students. The Strava application is a popular application used to record physical activities carried out with its main features, namely Maps and Records via GPS technology (Y. Sun & Mobasheri, 2017). Apart from that, there is also a Groups feature which makes it easier for students to share information with each other about physical activities they can do. Technology can support students' achievement of fitness goals, namely with the Strava application (Sun, 2017).

Strava is a physical activity tracking application that can record the user's distance, time and speed. There is a challenges feature that users can take part in. There is also a leaderboard feature to find out user rankings and there is a club feature that can connect users according to their interests and location. Users can find out the routes they usually take and set the time and place for physical activity according to their convenience.

With the features in the Strava application, users can increase their fitness literacy by understanding the activity data detailed in the application (Robinson et al., 2024). This activity data can enable users to understand progress, training patterns, and evaluate the effectiveness of the training program being carried out. Apart from that, the Strava application can be a motivation through segments (route mapping) and leaderboards (ranking).

This motivation can create consistency in doing physical activity and competence in physical activity that is healthy and interesting (Fahmi et al., 2016; Fitri & Al, 2017). Users can also build physical activity community groups based on interests in certain types of activities and locations used for physical activity. Joint physical activity, encouraging each other, and sharing knowledge and experience are things that can make users consistent in physical activity so they can improve their fitness.

This is by the learning objectives of the Physical Education and Fitness course. The Strava application can increase students' fitness literacy if used optimally. In its use, the active role of lecturers as teachers is important. At Surabaya State University, lecturers who teach Physical Education and Fitness courses need to increase students' fitness literacy. Using the Strava application is a solution to this problem.

Research on the use of the Strava application has never been carried out. There is research regarding the use of other applications in learning, namely research by Bakhri et al in 2020 regarding the use of the Home Workout no Equipment application. In contrast to the research that used the Home Workout no Equipment application to improve students' volleyball serving skills, this research used the Strava application to increase students' fitness literacy. Research regarding the use of the Strava application needs to be carried out to find out the process and results.

Based on the explanation above, this research was conducted to describe the process of using the Strava application to develop the fitness literacy of Unesa students and describing the results of using the Strava application to develop the fitness literacy of Unesa students.

LITERATURE REVIEW

Fitness Literacy

Fitness literacy is the ability to understand information about fitness so that there is awareness of the importance of maintaining health through physical activity. Fitness literacy includes knowledge about physical exercise and its application in daily life (Said & Hanafi, 2022). With that, knowledge and skills go hand in hand with the concept of fitness literacy.

Fitness literacy is an understanding of how the body works, the importance of doing physical activity, and physical exercise programs to support fitness (Rahman et al., 2024). Fitness is a healthy state of oneself both physically, spiritually, and mentally. Fitness is a decision to be healthy for every individual. Fitness literacy is the ability and willingness to have a healthy lifestyle, both through physical exercise and maintaining a healthy diet. This reduces the risk of developing chronic diseases such as heart disease, diabetes or kidney disease (Komalasari & Pristianto, 2023).

Fitness literacy is obtained from the influence of both formal and non-formal education, increasingly sophisticated and fast access to information, as well as culture and the surrounding environment which can influence individual views regarding the importance of maintaining health through physical activity. Fitness literacy can be improved by education in schools, public health outreach, and the use of information technology such as applications that provide information and support for physical fitness.

One way to increase fitness literacy is by utilizing applications containing fitness information, helping users carry out physical activities, and being able to increase users' motivation to consistently carry out physical activities that suit their interests and needs. This application can be implemented and socialized through education in formal institutions such as lectures. Students can involve this application in the desired physical activity program. One application that supports fitness literacy is the Strava application.

Strava App

The Strava application is a popular application commonly used by sports fans or even athletes to record their physical activity (Wahyu, 2023; Widiastuti et al., 2021). The physical activity recording is used to

determine the progress of physical activity carried out consistently over time. This application utilizes GPS to track the route, distance, and speed of physical activity carried out.

This application allows users to interact and even provide support to other users to carry out physical activities. Fellow users can exchange information, do physical activities together, and compare each other's physical activity achievements. Relationships or correlations can be created to motivate and support users (West, 2015; Santos et al., 2023).

The Strava application was launched by Michael Horvath and Mark Gainey in 2009 and grew rapidly to have millions of users (Couture, 2021). Initially, this application was only used for one physical activity program, namely cycling. However, this application continues to be upgraded with additional features covering various types of sports. This application can also be connected to a smartwatch or heart rate sensor so that its use can be maximized. By offering these features, the Strava application has become an influential application in the world of sports.

The Strava application not only supports tracking physical activity and challenges for users, but the Strava application can also strengthen solidarity between application users with the follow, like, and comment features. There is also a club feature that allows the creation of a sports community. The Strava application has a positive impact on increasing fitness literacy (Widiastuti et al., 2021).

METHOD

Descriptive qualitative methods were used in this research to describe the process and results of using the Strava application to develop Unesa students' fitness literacy. The process of utilizing the Strava application is by integrating the Strava application in learning as material, media, and a physical activity training guide for Surabaya State University (Unesa) students from various faculties, namely FISH, FE, FT, FMIPA, and FBS which teach Education courses. Physical and Fitness. Qualitative data analysis techniques are used to describe the process of using the Strava application. Apart from that, there is also a fitness test to find out the results of using the Strava application. A data analysis technique using a simple average formula was carried out to describe the results of using the Strava application to develop Unesa students' fitness literacy.

RESULT AND DISCUSSION

The results and discussion in this research are about the process of using the Strava application to develop the fitness literacy of Unesa students and the results of using the Strava application to develop the fitness literacy of Unesa students.

1. Process of Using Strava

The process of using the Strava application to develop Unesa students' fitness literacy includes using it integrated in learning, as supporting material, learning media, and training guide. The following is an explanation of the process of using the Strava application.

1) Strava Application Integration in Semester Learning Plan

By integrating the Strava application, learning becomes more interactive. Students can be more active in learning by using the Strava application. The Strava application can be integrated into learning Physical Education and Fitness courses by the Semester Learning Plan (RPS). In the RPS there are objectives or Learning Outcomes (CP) that can be linked to the use of Strava. The following is the RPS data for integrating the Strava application in learning.

Learning Outcomes (CPL MK Unesa)	No.	Assessment Component	Category	Target Minimum	Source	Meeting
Specific skills-1	3.	Initial physical fitness test	(UAS-2)	Take the test/assessment	Fitness test options that can be carried out at home such as skipping, horizontal jump, plank and push ups. The following is a video tutorial for a physical fitness test that can be used as a reference http://bit.ly/Tes_Kebugaran_Jasmani_MPK_Penjasbug	1-2

Figure 1. RPS Specific Skills-1

The Strava application can support the implementation of physical activities as stated in the RPS above. Various physical activities such as skipping, horizontal jumps, planks, and push ups can be done as an initial fitness test before using the Strava application. In the RPS above, examples of video tutorials for physical activities such as skipping, horizontal jump, plank, and push up are also included to make it easier for students. This physical activity is a specific skill learning achievement-1.

Learning Outcomes (CPL MK Unesa)	No.	Assessment Component	Category	Target Minimum	Source	Meeting
Knowledge-1	3.	Types of fitness exercises	(Task-1)	Collect product	Evaluation Report products by filling in http://bit.ly/Hasil_Tes_Kebugaran_Jasmani_MPK_Penjasbug A summary of the results of the evaluation report will be sent to each student's email to be collected by the lecturer in charge of MPK Penjasbug	2

Figure 2. RPS Knowledge-1

The Strava application can increase students' knowledge regarding the types of fitness training as stated in the RPS above. There is a self-evaluation report by filling in the link listed in the RPS as a product collected. Students can use the Strava application because it contains various types of fitness training that can be used as a reference for doing assignments and as a reference for choosing a physical exercise program according to their interests and needs. Knowledge of the types of fitness exercises is a knowledge learning achievement-1.

Learning Outcomes (CPL MK Unesa)	No.	Assessment Component	Category	Target Minimum	Source	Meeting
Knowledge-2	3.	UTS	(UTS-1)	Mengikuti kuis	Kuis untuk UTS	8

Figure 3. RPS Knowledge-2

The Strava application can help students learn fitness activities according to the RPS. This knowledge is measured through Mid-Semester Tests (UTS) by taking the quizzes provided. Knowledge of fitness activities as measured through the implementation of the UTS is a knowledge-2 learning achievement.

Learning Outcomes (CPL MK Unesa)	No.	Assessment Component	Category	Target Minimum	Source	Meeting
General skills-1	3.	Ability to perform fitness activities	(Task-2)	Take the test/assessment	The following is an example of physical exercise that can be used Physical Training at Home or Training From Home (TFH) with Low Intensity - Beginner Level https://www.youtube.com/watch?v=GXQLMK8WVrk&t=2s Physical Training at Home or Training From Home (TFH) with Medium Intensity - Intermediate Level https://www.youtube.com/watch?v=RwQCOejaIOs Physical Training at Home or Training From Home (TFH) with High Intensity - Advance Level https://www.youtube.com/watch?v=o6oHOPhIHg&t=313s	3-15

Figure 4. RPS General Skills-1

The Strava application can be used by students to carry out fitness activities as exemplified in the link in the RPS. There are examples of physical exercises that can be done for both beginners, intermediate and advanced levels. With the record feature, the Strava application can be used to record physical exercise data carried out so that it becomes a measuring or assessment tool according to the RPS above. This physical exercise is a general skills learning achievement-1.

Learning Outcomes (CPL MK Unesa)	No.	Assessment Component	Category	Target Minimum	Source	Meeting
Specific skills-2	3.	Fitness test jasmani akhir	(UAS-3)	Take the test/assessment	Fitness test options that can be carried out at home include skipping, horizontal jumps, planks and push ups. Berikut adalah video tutorial tes kebugaran jasmani yang dapat digunakan sebagai acuan http://bit.ly/Tes_Kebugaran_Jasmani_MPK_Penjasbug dan mengisi laporan evaluasi diri pada link berikut http://bit.ly/Hasil_Tes_Kebugaran_Jasmani_MPK_Penjasbug	15

Figure 5. RPS Specific Skills-2

Special skills learning achievement-2 is the final skills training in RPS. There is a final physical fitness test carried out. Students take a final physical fitness test using the Strava application as a measuring tool for their physical exercise. The physical exercises carried out along with the recorded results are recorded in full using the Strava application. Students can do skipping, horizontal jumps, planks, and push ups with the video tutorials listed in the RPS above. The results of the physical training are summarized by students filling in the self-evaluation report link listed in the RPS. Complete data regarding the physical exercise carried out by the students is the achievement of learning special skills-2.

2) Supplemental Teaching Material in the Strava Application
Supplemental teaching materials in the Strava application can be taught in lessons. In the Strava application, some features can be used as supplements to teaching materials. These features are as follows.

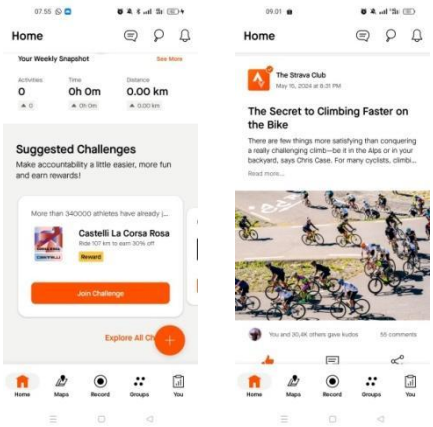

Figure 6. Home Feature Display

The first main feature is the home or homepage feature. On the homepage, students can do physical exercise regularly and the physical exercise is summarized as progress made during one week. Apart from the progress feature which summarizes physical training analysis data carried out from week to week, there is also an activities feature which can provide a summary of what activities have been carried out by the user. The homepage feature and profile feature are connected to provide summary data.

Students can use the Strava application to record all physical activities carried out, starting from the amount of physical activity carried out, time spent on physical activity, and distance traveled during physical activity. Apart from that, there is also news of events or sports activities being carried out. There are readings presented regarding the importance of physical activity.

In the Strava application's homepage feature, students can be motivated to continue physical activity. Student fitness literacy can be developed through this feature. All tips and tricks for physical activity to achieve optimal physical fitness are presented with attractive images. This makes the homepage display attract students to read news, whether news or sports tips and tricks.

Then, there are also suggested challenges or suggested challenges that can be followed. Students as users of the Strava application can take part in these challenges. The challenges taken can be adjusted to the student's interests, desires, and abilities. Fitness literacy material is supported by these features, starting from sports activity news, sports tips and tricks, the benefits of exercise, to challenges according to students' interests, desires, and abilities.

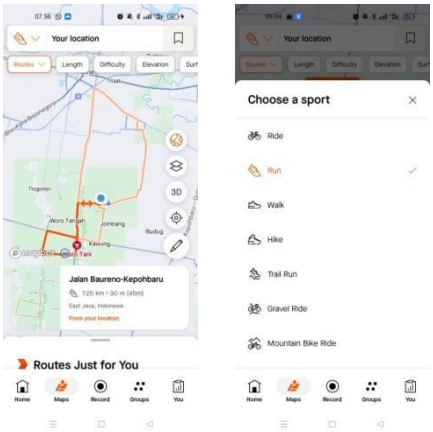

Figure 7. Maps Feature Display

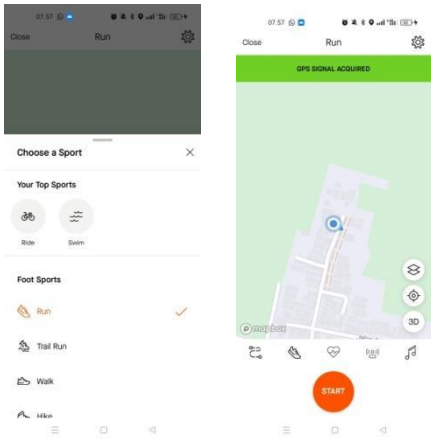

Figure 8. Record Feature Display

The Strava application uses GPS technology for its second main feature, namely Maps. This feature uses the user's location. Students can activate their device's location or GPS. Then, the Strava application provides several recommendations for suitable and comfortable physical exercise routes. There are several options for each route, for example, routes from one village to another or one sub-district to another. This route choice makes it easy for students to adjust their physical training route based on their comfort.

To set the route, there are settings for the desired distance range, the level of difficulty of the route that can be selected, the height of the road traversed, whether the surface of the route is rocky or smooth, and so on. This option can be a supplement to learning material. Students can learn about selecting routes according to their abilities and comfort and can make it easier for students to carry out physical activities outside the home.

The choice of route is adjusted to the type of physical activity chosen. Physical activities that require routes are 1) cycling; 2) running; 3) taking a leisurely walk; 4) hiking or long walks; 5) mountain trail running; 6) cycling on gravel roads; and 7) mountain biking. All kinds of physical activities can be selected and made easier with the help of route selection via this maps feature.

Apart from the feature for selecting physical activity routes, by using GPS technology the Strava application can record the physical activity carried out. The following displays the third feature, namely the record feature in the Strava application.

Apart from the feature for selecting physical activity routes, by using GPS technology the Strava application can also record the physical activity carried out. There are various physical activities to choose from, more than in the Maps feature. These types of physical activities are categorized into 1) foot sports or foot sports; 2) cycle sports or cycling sports; 3) water sports or water sports; 4) winter sports or winter sports; and others such as tennis, yoga, golf, badminton, and many other types of physical activity to choose from.

Students can use the Strava application to increase their knowledge and skills in physical activity. When recording physical activity, students can play songs to accompany them along the way or during the physical activity. The heart rate sensor can also be used by connecting it to a smartwatch or activating the step rate sensor or footstep sensor.

The routes taken during physical activity can also be saved so that it is easy to do them again in the future. This recording feature is used as a reference for ranking in the Strava application. Users can take part in challenges and record their physical activity to then compare and use as a ranking reference.

Students can use this feature to record their physical activities. This feature can also help lecturers to measure student fitness. The Strava application can be used as a fitness assessment measuring tool. Students can take advantage of the Strava application so that their fitness literacy can develop and the goal of fitness can be achieved optimally because this application makes it easier and motivates students.

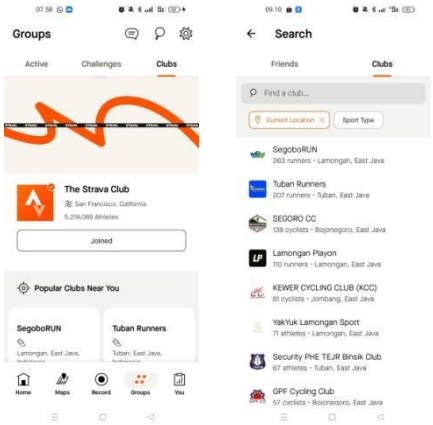

Figure 9. Groups Feature Display

There is a groups feature that users can use to join a community of sports lovers. These communities can be selected based on location and type of physical activity of interest. There are many communities around users. Students can join these communities, choose and join so that friends or relationships can be built.

The existence of a sports community makes students more motivated to do physical activities together. Discussions and mutual support can be carried out so that sports or physical training can be carried out optimally and consistently or regularly. Students can also take part in sports activities together in their surroundings, for example, healthy week walking together, running marathons, cycling together, or existing sports competitions.

Relationships can be built with this groups feature. Users can add relationships and add exercise friends. The supporting features include searching for communities or clubs according to your interests. There is a challenge feature that you can take part in with community friends. The challenge feature can make users even more enthusiastic about physical activity.

The Strava application can be used as an appropriate learning material supplement for students in general Physical Education and Fitness courses because the features in it are adaptive for all groups from beginners to advanced levels. The Strava application can help students manage their physical activity. That way, consistency in physical activity can be maintained. So, not only are students able to start, they are also able to maintain consistency and commitment to exercise with the help of the Strava application which makes it easy and motivating to continue physical activity both alone and with community friends.

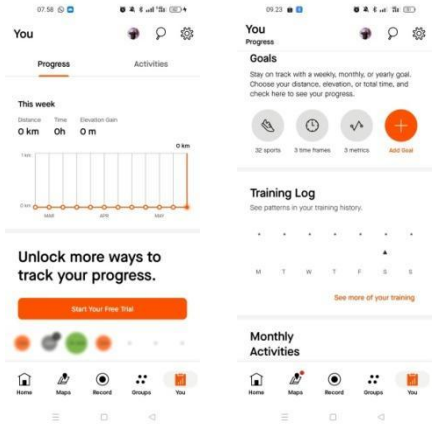

Figure 10. You Feature Display

The last main feature in the Strava application is the profile or you feature. This feature provides records of physical activity carried out. Progress and activities carried out are recorded with detailed graphic data from month to month. There are records of distance, time, and ranking obtained during physical activity.

Users can view and analyze to make improvements and upgrades the physical activity programs carried out. Students can make optimal use of the Strava application by upgrading their physical training based on physical activity records or recaps.

3) Strava Application as a Learning Media

The Strava application can be used as a learning medium for Physical Education and Fitness courses. The Strava application can help students increase their understanding of fitness literacy and physical activity practices. Lecturers as teachers are also helped by the Strava application because learning outcomes can be achieved optimally.

The Strava application can be used by students with guidance and direction from teachers. Physical activity tracking, physical activity recording, physical activity communities, and analysis of physical activity data over time can be explained by teachers for students to then apply during their physical training.

The Strava application has an attractive appearance and complete content. Lots of reading, tips, and tricks for physical activity from various countries around the world. This allows for increased knowledge for students. Apart from that, students can also practice their sports skills with the Strava application.

The Strava application can be used as a learning medium in project-based learning. Students can carry out physical exercise programs with the Strava application. The Strava application can help students

summarize their physical training results. The Strava application can also provide support with reading about the importance of exercise so that student motivation is maintained.

Learning media with the Strava application can enable students to participate in healthy sports competitions. Students can train in fitness through the Strava application. Students can choose a fitness training program according to their interests and needs. The fitness training progress graphic data is presented by the Strava application in detail. This data can be used as assistance in compiling fitness training results to fulfill course assignments.

4) Strava application as a training guide
The Strava application can be a training guide because it has a recording/recap feature of physical activity carried out. The Strava application is used to fulfill learning outcomes in the form of special skills-1, general skills-1, and special skills-2 as previously explained.

The Strava application can be used and student learning outcomes regarding fitness literacy can be optimal. Students can be guided to do physical exercise, starting from choosing the type of physical exercise according to their interests, choosing a route that suits their respective location, recording physical exercise to record every progress made, joining and supporting each other by joining a sports community around their location or according to their location. his interest, to the analysis of recorded data on the progress of physical training carried out from time to time.

In the Strava application, many features can support students to be able and willing to exercise. With complete and easy guidance and feature facilities, students can build a commitment to continue exercising to maintain body fitness in between busy lectures. The importance of maintaining health and the methods or tips and tricks are presented in full in the Strava application.

2. Results of Using Strava

The results of using Strava to develop Unesa students' fitness literacy can be seen in the results of their assignments. For 12 minutes, students ran using the Strava application. The distance traveled may vary from one student to another. On average, Unesa students can run a distance of 1 kilometer in 12 minutes.

Apart from measuring distance and time, there is a measurement of exercise intensity with pulse data before and after running. Unesa students experienced an increase in their pulse rate after doing physical exercise with the Strava application. This shows good exercise intensity.

The following are the results of using the Strava application by students after studying the material with the help of the Strava application by doing the physical activity of running for 12 minutes.

Kode	Jenis	Usia	Tinggi Badan	Berat Badan	Denyut Nadi Sebelum	Jarak Tempuh	Denyut Nadi Setelah	Bukti (SS Strava)
M1	P	18	155	80	140	1,23	140	https://drive.google.com/open?id=1UP3FhID53kIxkyX4ZiWfTUD-RsCu8rfd
M2	P	18	145	45	100	1,31 km	130	https://drive.google.com/open?id=1BVRRz4wXtzFOX_1vAFzRtTlHK9e14Z1x
M3	L	20	161	58	120	1.62	180	https://drive.google.com/open?id=13c6W6KL0LVEjTi1sLwTh_kINxZ4YolcI
M4	L	19	162	57	100	1.400 meter	120	https://drive.google.com/open?id=1YLLJwquw2bfRph1gZa00mHhkFDTNnWL7
M5	P	18	155	46	80	750	90	https://drive.google.com/open?id=1TEGjqiGxoBS_6FaoJJYZtIMtccK7ARF4
M6	P	19	148	38	120	990	140	https://drive.google.com/open?id=1F-mvkB7ujEpXg-rpt6_5njiXh_ExEQKw
M7	L	19	174	66	100	1.17	114	https://drive.google.com/open?id=1X7KFAj7NsBl2ywQsFktpGgKUwqr0rjCd
M8	P	18	155	43	90	1.12 km	119	https://drive.google.com/open?id=1-7MSUV1AZWaBdlOueS2NserZ4nOXx2F2
M9	P	19	160	57	110	1660 meter	156	https://drive.google.com/open?id=1QLUuk7CP8LISHeokeZg-uHS51f4_Nr90
M10	L	19	160	53	100	1230	120	https://drive.google.com/open?id=1plWqpdXM2rjVRfBRMgpLW819aRlawDJ7
M11	P	18	165	60	110	1.15 km	132	https://drive.google.com/open?id=1WPTWMGyZSAYvbRd4BZIRjmWUdkFAx4gp
M12	P	18	150	43	60	1,12km	120	https://drive.google.com/open?id=1jzA8Z4Tghl1MDfSwtEnTlflnBDfySzOM
M13	P	19	155	65	110	1.00 km	138	https://drive.google.com/open?id=1r5D_DVdiqgro_kkjDL5VcqCH0PHeL7vR
M14	P	18	156	50	100	1,04	70	https://drive.google.com/open?id=17NEGprwlKG1ZIMGtJYihbiaeFQ8y6902
M15	P	20	155	48	60	1090 m	162	https://drive.google.com/open?id=194KzGX-jff3VvkuvCzWRo1Pfn0GvY4bW
M16	P	19	160	47	110	1070 m	120	https://drive.google.com/open?id=1S7M-RUeMcnoJ5EfdhlfF6UZ15yvS6xjV
M17	P	18	152	39	120	1009	130	https://drive.google.com/open?id=1HLr3tY5VqFwbp6mGEA-gOYNMIQ-CYJLo
M18	L	18	167	77	100	1400 meter	168	https://drive.google.com/open?id=1hg41CbZ1ByH6ZW7cZlr2lHwRyrlKHni9
M19	L	18	170	70	86	1760 meter	156	https://drive.google.com/open?id=1m22-FkPmTJ1lNX9un1woHxo02mARJZJm
M20	P	19	156	49	120	1070meter	144	https://drive.google.com/open?id=1FO_3nFchWknssbuJ3t097cNBByVfivwm

Figure 11. Results of Using Strava App

Students fill out a questionnaire regarding the results of physical exercise using the Strava application. A total of 309 respondents, namely students from various faculties, namely the FISH, FE, FT, FMIPA, and FBS faculties in the general Physical Education and Fitness courses. Students fill in answers about the results of physical training using the Strava application.

The data in the results of using the Strava application above is regarding student identity, date of physical exercise, duration of physical exercise, age, height, weight, running distance that has been done, pulse rate before physical exercise, and pulse rate after exercise. physical, namely running, as well as screenshots of using the Strava application.

It is known that students use the Strava application appropriately. The Strava application is utilized and used well. The Strava application records data on the results of physical training carried out by students. This makes it easier for students to report the results of physical exercise as an assignment for this Physical Education and Fitness course. Apart from that, the use of the Strava application can develop students' fitness literacy with the results as follows.

1) Physical Activity Monitoring
The Strava application helps students to monitor their running activities. Distance and time are tracked and recorded by the Strava application so students can see their fitness progress over time. After using the Strava application continuously to carry out physical exercise, students can understand the patterns and benefits of the physical exercise carried out until they achieve physical fitness according to their goals.

2) Consistency and Commitment to Exercise
The Strava application has a groups feature to form social relationships so that students can provide support, and encouragement, discuss with each other, and take part in challenges together. With this, students can be motivated to continue doing physical activity so that consistency and commitment to

exercise continue and even increase so that fitness goals are achieved.

3) Analysis of Physical Activity Progress Data
The Strava application has a feature to record all the results of physical activity that has been carried out, starting from speed, distance, and time, to the physical activity route. Analysis of this data can be used as a reference for improving performance and evaluation that needs to be carried out so that the physical training program runs more optimally.

4) Selection of Challenges and Consolidation of Goals
Students can use the Strava application for their purposes, such as reducing body fat, maintaining health, and increasing muscle mass for an ideal body. This goal is strengthened by the existence of challenges in the Strava application. This makes students motivated to achieve the expected targets. With the results of recorded data during physical activity, students can see and understand patterns of meeting their fitness targets.

5) Awareness of the Benefits of Exercise
By using the Strava application regularly for exercise or physical activity, students can realize the benefits of exercise. Students can understand the relationship between physical activity and fitness or health, both physical and mental. With this, no matter how busy students are with their studies, physical activity can be carried out to maintain fitness. This is a manifestation of the fitness literacy obtained by students. Students' fitness literacy has developed with the help of the Strava application in their physical activities.

Overall, it can be stated that the use of the Strava application can develop students' fitness literacy with a significant positive impact. The features in the Strava application help students to track, carry out, and increase physical activity according to their interests and needs. Apart from that, the most important thing is that students can be motivated and understand more about how important it is to maintain fitness with a healthy lifestyle, one of which is by exercising or doing physical activity regularly and consistently.

CONCLUSION AND RECOMMENDATION

Based on what has been explained, the results of this research explain the process of using the Strava application to develop Unesa students' fitness literacy. The process of utilizing the Strava application is 1) integration of the Strava application in RPS; 2) supplementary teaching materials in the Strava application; 3) the Strava application as a learning medium; and 4) the Strava application as a training guide. The results of using the Strava application are the development of student fitness literacy as proven by 1) monitoring physical activity; 2) consistency and commitment to exercise; 3) analysis of physical activity progress data; 4) selecting challenges and establishing goals; and 5) awareness of the benefits of exercise felt by students after using the Strava application. With the various features presented in full by the Strava application, the results of using the Strava application indicate that the use of the Strava application can develop the fitness literacy of Unesa students. The suggestion that can be given is that the Strava application can be used optimally in learning, such as studying general Physical Education and Fitness subjects. Teachers or lecturers can use the Strava application in learning. With the lecturer's direction and guidance, students can use the Strava application optimally so that their fitness literacy increases and they become more aware of the importance of exercise so that physical activity can be done regularly.

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