

**Motoric Potential of Freshmen in Physical Education, Sports and Health Study Program (PJOK) Faculty of Sports and Health Universitas Negeri Gorontalo Class of 2022****Hariadi Said^{1✉}, Suriah Hanafi²**Faculty of Sports and Health, Universitas Negeri Gorontalo, Gorontalo, Indonesia¹Faculty of Sports Science, Universitas Negeri Makassar, Makassar, Indonesia²**Article History**

Received April 2022

Accepted May 2023

Published Vol.12 No.(2) 2023

Keywords:Motoric; Freshmen; PJOK;
Universitas Negeri Gorontalo**Abstract**

Motoric potential must be owned by every new student, especially those who concentrate on the Physical Education, Sports and Health (PJOK) study program. It is important because most of the lectures in the PJOK study program are field-based courses. The purpose of this study was to determine the motor potential of freshmen of the PJOK study program, Faculty of Sports and Health (FOK), Universitas Negeri Gorontalo (UNG) class of 2022 who successfully passed the college entrance through the portfolio program. The research method used in this research was descriptive method. The research population was all new students of the 2022 PJOK FOK UNG study program, totalling 77 people, including 63 male students dan 14 female students. The form of the test used in this study referred to the pattern of motor tests in general, namely throwing and catching tennis balls, push-ups, sit-ups, agility and vertical jumps and bleep tests. The results showed that the freshmen of PJOK FOK UNG class of 2022 were divided into 2 groups: first, the male group had motor skills by category; very good (11 students or 17.45%), good (20 students or 31.74%), moderate (23 students or 36.50%) and poor (6 students or 9.52%) and very poor (3 students or 4.76%). Second; the group of women with very good and good categories did not exist or 0%, while there were 7 students (50%) in the moderate category, and 3 students (21.42%) in the poor category, and 4 students (28.57%) in the very poor category. It can be concluded that the motor potential of freshmen of PJOK study program, faculty of sports and health class of 2022 at the UNG needs serious attention.

How to Cite

Said, H., & Hanafi, S. (2023). Motoric Potential of Freshmen in Physical Education, Sports and Health Study Program (PJOK) Faculty of Sports and Health Universitas Negeri Gorontalo Class of 2022. *Journal of Physical Education, Sport, Health and Recreation*, 12 (2), 130-137.

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INTRODUCTION

It is not exaggeration that of the 7,182 study programs spread across 85 State higher education institutions, only two study programs received special treatment from the Minister of Education, Culture, Research and Technology, Republic of Indonesia, namely arts and sports. Such an intended special treatment refers to the requirements imposed for prospective new students who wish to continue their studies in the study programs of arts and sports. Specifically, the prospective new students taking those two study programs are required to include a portfolio in addition to the academic scores to fulfil administrative requirements. In general, portfolio is a collection of documents of a person, institution, group, company, organization, and the like, which have the goal of documenting the progress of a process in achieving predetermined goals (Arifin, 2010).

In the arts and sports study program, this portfolio documents a collection of students' works or performances made throughout their secondary education journeys. As stated, the portfolio must be attached when the prospective new students opt to study in the fields of arts or sports program and it serves as a tool to measure the students' skills and increase their chances of being qualified for their chosen major (Arifin, 2010). Having a good portfolio record can help high school students successfully enter college within the two mentioned study programs.

In the case of the entrance tests to tertiary institutions, the Higher Education Entrance Test Institute (henceforth LTMPT) has been the first step for selected prospective students in achieving their goals for bachelor's degree, as it serves as the only institution administering standardized college entrance tests for prospective new students. In its operations, LTMPT provides the schools with the authority to conduct tests on prospective students through portfolios. As already mentioned, the Physical Education, Health, and Sports (PJOK) study program is one of the study programs that accepts prospective students through portfolios. One of the 10 types of special requirements for the PJOK study program is that each prospective student is required to include data on motor skills that must be filled out by the Physical Education and Sports teachers at their respective schools. If there are no Physical Education and Sports teachers, filling out motor skills data for the sports portfolio can be done by the principal of the school at which the students are studying. Motor skills data should be filled in completely and signed by the PJOK teacher or the school principal.

Pertaining to the delegation of authority to

sports teachers and school principals in conducting motor skills tests for prospective new students who choose PJOK study programs, further inquire on it needs to be investigated. The present proposed study, however, is not intended to refute or doubt or even reject the work of sports teachers and school principals. On the other hand, the study presented in this article indeed is an attempt to determine whether the data provided are true. Further exploration on this inquire needs to be examined, considering the characteristics of lectures in PJOK study programs where most of them are carried out in the field.

In connection with these conditions, efforts are needed to find out the motor potential of new Physical Education and Health students Batch 2022 through portfolio screening. Selection through achievement documents presumably can still be manipulated, not to mention the current technological advances that allow fraudulent practices in the form of falsification of these documents. The process of selecting skills or abilities generated only from portfolio selection will not be able to prepare prospective students who successfully pass the selection process due to their talent. It is probably because those who pass could only have a paper-based achievements.

To avoid this, efforts are needed to discover the motor potential students have, seeing that good motor ability will affect quality. According to Sukintaka (2004), motor ability is the quality of the results of individual movements in making movements, both movements that are not sports or movements in sports or the maturity of the appearance of motor skills. From this, it is understood that the higher a person's motor skills, it is possible that the work power will be higher.

Additionally, Sukardiyanto, (2005) in Febrianty (2020, p. 223), argues that motor ability is a person's ability to perform basic movements to more complex movements. It is also stated that motor potential has a contribution to the success of specific tasks or movements (Sukardiyanto as cited in Febrianty, 2020, p. 223). Scholars (see Gallahue et al., 2012; Lubans et al., 2010) defined motor ability as a person's ability to show skill in performing a wide range of movements, whereas motor potential refers to a form of permanent change in movement behavior as a result of practice or experience (Ignatova, 2021). Related to motor potential, Ignatova (2021) explained it as a characteristic that is determined by heredity and as a whole is not easily changed by practice or experience. Safely stated, motoric ability is more accurately referred to as the capacity of a person related to the implementation and demonstration of a skill that is relatively inhe-

rent after childhood.

Presently, there has been a demand requiring for campus elements to recognize and understand the motor potential that each prospective new student wishing to pursue their study in sport study Program, not to mention the Universitas Negeri Gorontalo (UNG) where the present author has been working. In the UNG, such a demand has been an effort to prepare a more effective and efficient learning framework to realize the government's program, namely independent learning, and an independent campus (MBKM). One of the advantages of the MBKM program is that it provides opportunities for students to equip themselves through internships in various government and private agencies and can experience lectures outside their own study program. This experience is at least a capital for students before plunging into society. In connection with these conditions, researchers are interested in discovering the motor potential of new students of PJOK study program Batch 2022 the UNG. The study results will then be made use of as a basis for making lesson plans to suit their needs. The PJOK study program at the Universitas Negeri Gorontalo has a special feature, characterized by field-based lectures. For that reason, motor potential is necessary for every student.

Drawing upon the aforementioned background, this study attempts to discover the motor potential of freshmen of the PJOK study program, Faculty of Sports and Health (FOK), Universitas Negeri Gorontalo (UNG) class of 2022 who successfully passed the college entrance through the portfolio program.

METHODS

The method used in this researcher was descriptive research method. All students of the PJOK study program Batch 2022, which consisted of 77 students

were the population of this study. Of these total students, 63 of whom were men, while 14 students were women. The research instrument was a motor ability test consisting of throwing and catching a tennis ball, push-ups, sit-ups, agility, vertical jump and bleep tests. The test type of this study was a combined test, including a test of coordination, arm strength, abdominal muscle strength, agility, leg muscle explosive power and general endurance. The data analysis technique was processed using descriptive analysis where the obtained data that contained numerical accounts were entered into MS Excel and were analyzed based on the type of test performed by both male and female research sample.

RESULTS AND DISCUSSION

This section reports the research findings regarding the motor potential of the freshmen majoring PJOK study program, class of 2022 at Universitas Negeri Gorontalo. It should be emphasized that in this study, there are four categories of motor potential of these freshmen that were studied. The four categories are partial motor potential of male students, partial motor potential of female students, cumulative motor potential of male students, and cumulative motor potential of female students. In the paragraphs below, the findings from the four categories are presented.

Table 1. above provides the findings data related to Partial Motor Potential of male students of PJOK Study Program Class of 2022, Universitas Negeri Gorontalo. Based on table 1 above, motor potential with coordination aspects as measured through throwing and catching a tennis ball for male freshmen with 63 total students, only 4.76% sample (3 students) were classified as very good. Furthermore, as many as 20.63% of the students (13 students) belonged to the good category and 65.07%

Table 1. Partial motor potential of male students

Category	TCTB	PU	SU	VJ	AG	BT
Very good	7.14%	21.42%	28.57%	7.14%	-%	-%
Good	14.28%	35.71%	35.71%	7.14%	-%	-%
Moderate	35.71%	35.71%	35.71%	57.14%	-%	78.57%
Poor	35.71%	7.14	-%	28.87%	21.42%	21.42%
Very Poor	7.14%	-%	-%	-%	78.57%	-%

Where:

- TCTB = Throwing and Catching Tennis Ball
- PU = Push-Up
- SU = Sit-up
- VT = Vertical Jump
- AG = Agility
- BP = Bleep Test

sample (41 students) belonged to the moderate category. Meanwhile, 6.34% of students (4 students) were in the poor category and the remaining 3.17% (2 students) was in the very poor category.

In terms of motor potential from the aspect of arm muscle strength as measured through male freshmen push-ups with a total sample of 63, 11.11% (7 students) were in the very good category and 31.74% of the sample (20 students) were classified as good. Meanwhile, 38.09% of the sample (24 people) were in the moderate category. The remaining 12.69% of the sample (8 students) and 6.34% of the sample (4 students) were in the poor and very poor category, respectively.

With respect to motor potential from the aspect of abdominal muscle strength tested through sit-ups with a male sample, 30.15% of the sample (19 people) were classified as very good, 49.20% of the sample (31 people) were classified as good and 19.04% of the sample (12 students) were moderate. The remaining 1.58% of the sample (1 person) was classified as poor. Meanwhile, there was no student belonging to the very poor category (0%).

Furthermore, in terms of motor potential from the aspect of leg explosive power as measured by vertical jump for the male freshmen, 4.76% of the sample (3 students) were classified as very good. Then, 49.20% of whom (31 people) were in the good category and 31.74% of the sample (20 students) were in the moderate category. The remaining 9.52% of the sample (6 students) and 4.76% of the sample (3 students) fell into the poor and very poor categories.

For motor potential from the aspect of agility as measured through agility-run with a male freshmen sample, only 1.58% of the sample (1 student) was in the very good category. Meanwhile, those belonging to the good and moderate categories were respectively 41.26% of the sample (26 students) and

36.50% of the sample (23 students). The remaining 12.69% of the sample (8 students) belonged to the poor category, and 7.93% of the sample (5 students) belonged to the very poor category.

Lastly, in terms of motor potential from the aspect of general endurance as measured through the bleep test with a male sample, there were no students belonging to the very good, good and very poor categories. On the other hand, there were students belonging to the moderate and poor categories, with the presentations of 20.63% (13 students) and 79.36% (50 students), respectively.

Table 2. above showed the data findings pertaining to the motor potential of female freshmen in the PJOK Study Program Class of 2022, UNG. As shown in table 2 above, motor potential with the coordination aspect as measured by throwing and catching female freshmen's tennis balls with 14 total students, only 7.14% of whom (1 student) was classified as very good and 14.28% of the sample (2 students) were classified as good. Meanwhile, as much as 35.71% of the sample (5 students) belonged to the moderate category, so did the percentage of the sample in the less category. The remaining 7.14% of the sample (1 student) belonged to the very poor category.

In the case of motor potential from the aspect of arm muscle strength as measured through female freshmen push-ups with a total sample of 14 students, 21.42% of whom (3 students) were in the very good category. Meanwhile, there was an equal number of sample percentages in the good and moderate categories, with a percentage of 35.71% of the sample (5 students). The remaining 7.14% of the sample (1 student) belonged to the poor category. Whereas, there were no samples of female freshmen who were in the very poor category.

Furthermore, in terms of motor potential from the aspect of abdominal muscle strength which was

Table 2. Partial motor potential of female students

Category	TCTB	PU	SU	VJ	AG	BT
Very good	7.14%	21.42%	28.57%	7.14%	-%	-%
Good	14.28%	35.71%	35.71%	7.14%	-%	-%
Moderate	35.71%	35.71%	35.71%	57.14%	-%	78.57%
Poor	35.71%	7.14	-%	28.87%	21.42%	21.42%
Very Poor	7.14%	-%	-%	-%	78.57%	-%

Where:

- TCTB = Throwing and Catching Tennis Ball
- PU = Push-Up
- SU = Sit-up
- VT = Vertical Jump
- AG = Agility
- BP = Bleep Test

tested through sit-ups with a female sample (14 total students), 28.57% of the sample (4 students) were classified as very good. Meanwhile, in the good and moderate categories, there was an equal number of sample percentages, namely 35.71% (5 students). On the other hand, no female freshmen were found in both poor and very poor category (0%).

Next, in terms of motor potential from the aspect of leg explosiveness as measured by vertical jumps of female samples (14 total students), only 7.14% of the sample (1 student) was classified as very good, as was the sample in the good category (7.14% of students). Meanwhile, 57.14% of the sample (8 students) belonged to the medium category. The remaining 28.87% of the sample (4 students) were classified as the less category. In the very poor category, there was no sample (0%).

In terms of motor potential from the agility aspect as measured through agility-run female samples (14 total students), there was no samples belonging to the very good, good and moderate categories (0%). Meanwhile, 21.42% of the sample (3 students) belonged to the less category. On the other hand, 78.57% of the sample (11 students) fell into the very poor category.

Finally, for motor potential from the aspect of general endurance as measured through the female bleep test (14 total students), there was no sample of students who was in the very good and good categories (0%). While in the moderate category, there were 78.57% of the sample (11 students). The remaining 21.42% of the sample (3 students) belonged to the poor category. In contrast, there was no a single female student belonging to the very poor category (0%). In the next table, the cumulative findings of the motor potential of the male freshmen are presented.

Table 3. Cumulative motor potential of male freshmen

Category	Frequency	Percentage
Very good	11	17,45%
Good	20	31,74%
Moderate	23	36,50%
Poor	6	9,52%
Very poor	3	4,76%

Based on **Table 3.** above, the cumulative results of the study showed that the motor potential of new male students of the PJOK study program class of 2022 with a total of 63 students, as many as 11 students (17.45%) were in the very good category. Meanwhile, as 20 students (31.74%) were in the good category. Furthermore, 23 students (36.50%) were in the moderate category. The remaining 6 stu-

dents (9.52%) and 3 students (4.76%) were in the poor and very poor categories.

Table 4. Cumulative motor potential of female freshmen

Category	Frequency	Percentage
Very good	-	0%
Good	-	0%
Moderate	7	50%
Poor	3	21,42%
Very poor	4	28,57%

Table 4. above displays the cumulative data findings on the motor potential of the female freshmen in the PJOK study program class of 2022, UNG. Cumulatively, the results of the study showed that the motor potential of the female freshmen with a total of 14 students, no students possessed motor potential in the very good category. This condition also found in the good category where no women were in that category. Another case for the medium category, there were 7 students (50%). The remaining categories of poor and very poor categories, there were 3 students (21.42%) and 4 students (28.57%) respectively.

The results of this present study revealed that cumulatively, the motor potential of freshmen of PJOK study program class of 2022 at the UNG was in different categories for both male and female samples. Furthermore, cumulatively the motor potential of the male group with a total of 63 students, there were 11 people or 17.45% who were in the very good category. This obtained number came from 5 aspects, namely abdominal muscle strength (sit-ups), arm muscle strength (push-ups), coordination (throwing and catching tennis balls), explosive leg power (vertical jump) and agility. Meanwhile, from the aspect of general endurance that was tested through the bleep test, none of them had very good endurance. These results illustrate that freshmen of PJOK study program class of 2022 at the UNG do not have the capital to attend lectures related to endurance material. According to Ashfahani (2020), general endurance is a person's ability to perform moderate-intensity activities throughout the body and most of the muscles for long periods of time. With this in mind, someone who does not possess endurance can certainly experience problems when attending lectures in the field. For an endurance athlete, it is like the fuel of a vehicle where the vehicle can move if it is supported by fuel. The more fuel the vehicle has, the farther it will travel and the longer it will take. Therefore, in the absence of an element of endurance from freshmen of PJOK

Study Program class of 2022 at the UNG, special attention is really needed from the study program, especially the teaching lecturers.

Further, the findings pinpointed that cumulatively the motor potential of the male group with 63 total students, 20 students or 31.74% were in the good category. The percentage of 31.74% is obtained from several aspects, including abdominal muscle strength (sit-ups), leg muscle explosive power (vertical jump), agility (agility), arm muscle strength (push-ups) and coordination (throw catching a tennis ball). In contrast to the aspect of endurance, none of them have it. The dominance of sit-ups and vertical jumps indicates that the freshmen of PJOK study program at the UNG are better prepared for certain sports that do not really require general endurance. One of the sports that suits their motoric potential is game sports. Furthermore, if viewed from the character of the sports branch, the motor potential they have is suitable for the sports of volleyball and basketball. These two types of games aside from the relatively medium size of the field and with almost the same number of players, namely 6-person volleyball and 5-person basketball allow them to do well. Volleyball and basketball are sports that generally require leg muscle explosive power and abdominal muscle strength. This means that PJOK study program students with good category motor potential are most likely to be able to attend lectures well.

In connection with the findings above, recently investigators (see Andiyanto & Berlian, 2020; Asnaldi, 2020; Aurillia et al., 2017; Muchlisa, 2017) emphasized that leg muscle explosive power is a relationship that influences each other between the muscles of the body. An athlete who has good leg muscle explosive power will support the ability to smash (Andiyanto & Berlian, 2020; Asnaldi, 2020; Muchlisa, 2017). Bearing this in mind, it is safe to maintain that students who have leg muscle explosive power which is manifested through the ability to vertical jump and muscle endurance shown through sit-up abilities can be sure to attend lectures well. For them, big ball games such as volleyball and basketball are interesting games. However, it is also possible that they will experience problems if the lectures are held in close proximity. It is because those who are in the good category do not have general endurance.

Moreover, cumulatively the motor potential of the male group with a total of 63 students, there are 23 people or 36.50% in the moderate category. The percentage gain of this size is dominated by aspects of coordination (throwing and catching tennis balls) with a greater percentage than other motoric aspects such as arm muscle strength (push-ups), agi-

lity (agility), leg muscle explosive power (vertical jump), general endurance (bleep test) and abdominal muscle strength (sit-ups). That results signal that the freshman of the PJOK study program class of 2022 at the UNG are more prepared to take part in game sports lectures. Previous researchers, such as Hikmah (2019); Sukirno and Kurdi (2011), maintain that coordination is a person's ability to make movements quickly and precisely. In line with this opinion, Falentino and Suwirman (2022) argued that eye-foot coordination is an element of physical ability that is quite important and has a relationship and influence on the ability of players to dribble. In principle, students who have a good level of coordination will have no problem taking part in agility and game sports lectures. Capitalizing on the dominance of coordination aspects supported by aspects of arm muscle strength (push-ups) and agility (agility) and leg muscle explosive power (vertical jump), general endurance (bleep test) and abdominal muscle endurance (sit-ups), it can be concluded that the freshmen of the PJOK Study Program Class of 2022 at the UNG have slightly more advantages in attending lectures, especially games and agility sports, such as gymnastics and others.

Further, findings revealed that cumulatively the motor potential of the male group with a total of 63 students, 6 people or 9.52% of them were in the less category. This percentage figure is dominated by the general endurance aspect (bleep test) compared to other aspects such as arm muscle strength (push-ups), agility (agility) and coordination (vertical jump) and abdominal muscle strength (sit-ups). This condition signifies that those who are classified as having less cumulative motor potential will experience problems in lectures.

In addition, cumulatively the motor potential of the male group of 63 total students, 3 students or 4.76% are in the very less category. This obtained percentage consists of several aspects of motor potential with order, agility (agility run), arm muscle strength (push-ups), explosive leg power (vertical jump) and coordination (throwing and catching a tennis ball). Meanwhile, for the aspects of abdominal muscle strength (sit-ups) and general endurance (bleep test), there were no students who were classified as very poor in both aspects. This means that cumulatively the motor potential of the male group of the PJOK Study Program Class of 2022 at the UNG is very poor in terms of agility, arm muscle strength, leg muscle explosive power, and coordination. Based on the description of these findings, special attention is needed from the campus, in this case the lecturers, to prepare teaching materials so that graduate learning outcomes can be fulfilled.

Subsequent findings showed that in terms

of the cumulative motor potential of the female group, totaling 14 students, not one of the female students was in the very good and good category. This percentage demonstrates that cumulatively the women's group is really in an alarming state. Of the 6 items of motor potential tested, including coordination (throwing and catching a tennis ball), arm muscle strength (push-ups), abdominal muscle strength (sit-ups), leg muscle explosive power (vertical jump) and agility (agility) and general endurance (bleep test), none of them have it. Referring to these findings, the character of the lectures in the PJOK study program at the UNG which is dominated by the field which requires students to always move whether for a long or moderate time is definitely a big problem for them. More crudely, this condition is an obstacle to the realization of the expected graduates' learning outcomes. In simple terms, the learning outcomes of PRODI graduates (CPL-PRODI) where the abilities possessed by each PRODI graduate which are the internalization of attitudes, mastery of knowledge and skills according to the level of the study program obtained through the learning process are difficult to achieve. This condition requires all elements who are members of the PJOK FOK UNG study program, from teaching staff, administration to lecturers to be involved in efforts to fix the deficiencies that these students have.

In contrast, cumulatively the motor potential of the female group with a total of 14 students, seven of whom (50%) have motor potential in the medium category. This result indicates that the average female student is not ready to accept sports learning, which is mostly based on field activities. Furthermore, of the 6 aspects of motor potential, one of them, agility, is not owned by the female sample. Meanwhile, all sports in general require aspects of agility in carrying them out. Agility itself, according to Kusminto et al., (2021); and Ozmen and Aydogmus (2017), is the ability to maintain or control the position of the body when quickly changing direction during a series of movements. By not having this element of agility, it can be concluded that students will later experience quite complicated problems in lectures.

Meanwhile, cumulatively the motor potential of the women's group totaling 14 students, as many as 3 students (21.42%) were in the less category, and 4 students (28.57%) were in the very less category, which if the sum of the percentages reached 50%. This percentage figure is very worrying, considering that lectures in the PJOK study program, faculty of health and sports at the UNG are generally field-based. The PJOK study Program is one of two study programs that receives special treatment in terms of the technique of accepting new prospective

students. The special requirements that must be met by prospective new students are the track record of the achievements of the prospective students. This requirement is based more on the character of the PJOK study program which combines Bloom's theory: cognitive, affective and psychomotor domains. Bloom's taxonomy is a hierarchical structure that can identify the ability of each individual starting from the lowest level to the highest level of ability possessed by the individual, thereby promoting higher-order thinking skills in the students (Capel & Whitehead, 2015; Questioning in PE, 2023).

In the current situation, if the independent learning program is implemented following Bloom's taxonomy in determining student cognitive levels, then this will make it easier for lecturers to determine learning materials for students. In addition, by applying bloom taxonomy in the independent learning program, it can help map concepts in learning activities in that it serves as a standard for achieving student learning outcomes (Capel & Whitehead, 2015). With the category of less and very less motor potential of freshmen of the PJOK study program class of 2022 at the UNG, this will affect the three bloom taxonomic domains.

The three domains contained in bloom's taxonomy are related to educational goals. The first is the cognitive domain, which in Bloom's taxonomy will focus on student behavior that emphasizes their intellectual abilities. Student behavior will show how their thinking skills and intelligence they have. The second is the affective domain, where it will focus on student behavior that emphasizes the emotional side and feelings they have. Examples of this domain are the interests, talents, attitudes and ways of students adapting to their environment. The third is the psychomotor domain, which will focus on student behavior in applying something (things related to motor skills). For example, this field will review how students' sports abilities, and so on.

From the description above, it can be deduced that students who are in the poor and very poor categories will experience difficulties in learning so that graduate learning outcomes are difficult to achieve. Therefore, the presence of new students in the PJOK study program faculty of health and sports at the UNG with a category of poor motor potential and very poor requires serious attention from the campus, especially the PJOK study program.

CONCLUSION

The results of this study indicate that overall, the motor potential of freshmen of PJOK study program faculty of health and sports at the UNG is not as expected. The delegation of authority from

the Minister of Education, Culture, Research and Technology of the Republic of Indonesia to schools, in this case sports teachers and school principals, to conduct motor potential tests for prospective students has not met expectations.

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