



## **Implementation of Hots Based (High Order Thinking Skill) Physical Education Learning to Learning for Physical Education Teacher In Masohi Central Maluku**

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### **Abstract**

The aims of this research are: 1). To find out the description of implementation, obstacles, and solutions from HOTS-based learning, 2). To find out how teachers implement HOTS in the learning process. The subjects of this study were 21 PJOK teachers in Central Maluku District, Maluku Province at the senior high school level. This research is a type of experimental research using a quantitative descriptive approach to the survey method. Instruments used for data collection namely Questionnaire with a rating scale in a rubric using a Likert scale. Based on the results of the research and data analysis, it shows that: 1) In the implementation of PJOK learning in high schools in Central Maluku district, Maluku Province, there are several obstacles in the application of learning. 2) The implementation of HOTS-based PJOK learning in junior high schools in Central Maluku Regency was in the adequate category with a score of 71.43% or only 15 teachers implemented HOTS-based learning with all the limitations.



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## INTRODUCTION

Teachers as educators at the level of early childhood, elementary and secondary education units have a very important role in determining the success of students, so that they become a determinant of improving the quality of education in schools. Physical education and sports are subjects taught in schools, which aim to develop aspects of physical fitness, movement skills, critical thinking skills, social skills, reasoning, emotional stability, moral action, aspects of a healthy lifestyle and recognition of a clean environment through physical activity. Sports and health are selected and systematically planned. Physical education teachers are faced with various challenges that are not easy to deal with. Christine J. Hopple (2005) states that being a physical education teacher is not easy. Physical education teachers teach hundreds of students in one week in a learning atmosphere inside and especially outside the classroom with more severe challenges, because they are influenced by many factors. Physical education teachers are challenged to use a variety of equipment in accordance with the demands of the lesson plans that have been prepared.

Implementation of the 2013 Curriculum which is the reference for the learning process in education units, according to policy, needs to integrate Strengthening Character Education (PPK). This integration is not as an additional or additional program, but as a unit of education and learning for all education actors in the education unit. In the 2013 curriculum learning there have been several paradigm changes that have been used by teachers so far, these changes are intended to adapt to the demands of the times and prepare Indonesian human resources to be ready to

compete in the future. Learning with the 2013 curriculum trains students to find out, not just be told about science, emphasizing language skills as a means of communication, carrier of knowledge, and thinking logically, systematically, and creatively. The implementation of the 2013 curriculum (K-13) has consequences for teachers who have to be more qualified in carrying out learning activities. Why is that? Because K-13 mandates the application of a scientific approach (5M) which includes observing, questioning, gathering information, reasoning/associating, and communicating. In addition to the challenges above, one way to create quality and superior human resources in the era of the industrial revolution 4.0 is by establishing Higher Order Thinking Skills (HOTS) capabilities in the education sector. HOTS is a way of thinking that is higher than memorize facts, present facts, or apply rules, formulas, and procedures (Conklin & Manfro, 2010). The concept of HOTS originates from Bloom's Taxonomy theory in 1956 which was later refined by Anderson and Karthwohl 2017. HOTS capabilities require students to master at the C-4 level analyzing, C-5 evaluating, and C-6 creating. HOTS is getting more attention when the emergence of 21st century learning frameworks, one of which is higher order thinking. The 21st century learning objectives have the characteristics of 4cs, namely communication, collaboration, critical thinking, and problem solving, creativity and innovation. Seeing this, HOTS abilities are a solution to the challenges of 21st century learning. Besides this, with HOTS students will be accustomed to thinking critically and creatively in solving problems and making decisions. (Anderson & Karthwhol, 2017).

This is in line with the PE program government that expects students to achieve various competencies by implementing Higher Order Thinking Skills (HOTS) or Higher Order Thinking Skills. These competencies are critical thinking, creative and innovative, communication skills, collaboration skills and confidence. Higher Order Thinking Skill (HOTS) is a high-level thinking skill that demands critical, creative, analytical thinking towards information and data in solving problems (Barratt, 2014). Higher-order thinking is a type of thinking that tries to explore questions regarding existing knowledge regarding issues that are not clearly defined and do not have definite answers (Haig, 2014: 143). Developing critical thinking requires practicing finding patterns, compiling explanations, making hypotheses, generalizing, and documenting findings with evidence (Eggen, 2012: 261). This shows that learning that triggers students to think at a higher level requires the use of active student-oriented learning strategies, so that students have the opportunity to observe, ask questions, reason, try, and communicate. This kind of approach is in line with the expectations of the 2013 curriculum. This shows that learning that triggers students to think at a higher level requires the use of active student-oriented learning strategies, so that students have the opportunity to observe, ask questions, reason, try, and communicate. This kind of approach is in line with the expectations of the 2013 curriculum. This shows that learning that triggers students to think at a higher level requires the use of active student-oriented learning strategies, so that students have the opportunity to observe, ask questions, reason, try, and communicate. This kind of approach is in line with the expectations of the 2013 curriculum.

With challenges that are so complex, the professional competence of physical education teachers is needed. Teacher competence is a set of knowledge, skills and behaviors that must be owned, internalized, and mastered by teachers to be able to carry out their professional duties. The purpose of this research to find out the implementation of HOTS-based PJOK learning in junior high schools in Central Maluku Regency (Masohi) Maluku Province, which was expressed by a questionnaire totaling 26 items, and divided into three factors, namely planning, implementation, and evaluation factors. An educator or teacher is very important to realize a better education. As Feturan & Hastuti (2017) said that teachers are professional educators with the main task of educating, teaching, guiding, directing, training, assessing, and evaluating students in early childhood education through formal education, basic education and secondary education which require them to have certain competencies.

## METHODS

In accordance with the author's goal to find out the implementation of HOTS (Higher Order Thinking Skill) in the learning process, this research uses a type of experimental research using a quantitative descriptive approach to the survey method. The instrument or tool used in this study was a closed questionnaire. The sample in this study were physical education teachers at the junior high school level in Central Maluku Regency who were taken randomly. The data analysis technique in this study used a percentage descriptive data analysis technique.

## RESULT

The results of this study are intended to describe data about the implementation of HOTS-based PJOK learning( Higher Order Thinking Skill ) on physical

education teachers in Central Maluku district, which was analyzed based on a questionnaire totaling 26 items consisting of Planning, Implementation and Evaluation. The following is a description of the data and research hypothesis testing.

### Data Description

The results of data analysis are explained in the data below:

**Table 1.** Descriptive Statistics of the Implementation of HOTS-Based PJOK Learning in Junior high school Maluku Tengah (Masohi)

Statistik	
N	21
Mean	101.05
Median	104
Mode	107
Std, Deviation	17.543
Minimum	70
Maximum	125

When displayed in the form of norms Assessment of the implementation of HOTS-based PJOK learning in Middle Maluku Tengah (Masohi) is presented in table 2 as follows:

**Table 2.** Norms for Assessment of the Implementation of HOTS-Based PJOK Learning in Central Maluku Tengah Junior High Schools (Masohi)

No	Interval	Category	Frekuensi	%
1	$171 < X$	Very good	0	0.00%
2	$109 < X \leq 171$	Good	6	28.57%
3	$47 < X \leq 109$	Enough	15	71.43%
4	$16 < X \leq 47$	Not Enough	0	0.00%
5	$X \leq 16$	Very less	0	0.00%
Amount			21	100%

Based on the picture above shows that the implementation PJOK-based learningI Central Maluku Middle School are in the category of "very poor" at 0.00% (0 teachers), "less" at 0.00% (0 teachers), "enough" at 71.43% (15 teachers), "good" by 28.57% (6 teachers), and "very good" by 0.00% (0 teachers). Based on the average value, which is 60.03, in the "enough" category.

### 1. Planning Factor

Descriptive statistical research data regarding the implementation of PJOK-based learningI MEANin Central Maluku Middle School (Masohi) based on the planning factor the lowest score was obtained (minimum) 23, the highest score (maximum 45 mean) 35,

the middle value (median) 36, the most frequently occurring value (mode) 31, standard deviation(SD) 6.75.

The form of Assessment Norms, the implementation of PJOK-based learningI in Central Maluku Middle School (Masohi) based on planning factors presented in table 3 as follows:

**Table 3.** Norms for Assessment of the Implementation of HOTS-Based PJOK Learning in Middle Maluku Middle Schools Based on Planning Factors

No	Interval	Category	Frequency	%
1	$39 < X$	Very good	7	33,33%
2	$31 < X \leq 39$	Good	8	38.10%
3	$24 < X \leq 31$	Enough	5	23,81%
4	$17 < X \leq 24$	Not Enough	1	4,76%
5	$X \leq 17$	Very less	0	0,00%
Amount			21	100%

Shows that the implementation of PJOK learning is basedI in Middle Maluku Middle School (Masohi) based on planning factors it is in the category of "very lacking" at 0.000% (0 teachers), "less" at 4.76% (1 teacher), "adequate" at 23.81% ( 5 teachers), "good" by 38.10% (8 teachers), and "very good" by 33.33% (7 teachers). Based on the average value, which is 25, the implementation of PJOK-based in Central Maluku Middle School (Masohi) is based on planning factors in the "enough" category.

## 2. Implementation Factors

Descriptive statistical research data regarding the implementation of PJOK-based learningI in Central Maluku Middle School (Masohi) based on the implementation factor, the lowest score was obtained (minimum) 30, the highest score (maximum) 59, (mean) 47, (median) 47, the most frequently occurring value (mode) 47 standard deviation(SD) 8.27.

When displayed in the form of Assessment Norms, the implementation of PJOK-based learningI in Central Maluku Middle School years based on implementation factors presented in table 4 as follows:

**Table 4.** Norms for Assessment of the Implementation of HOTS-Based PJOK Learning in Middle Maluku Middle Schools Based on Implementing Factorsan

No	Interval	Category	Frequency	%
1	$86 < X$	Very good	0	0.00%
2	$53 < X \leq 86$	Good	5	23,81%
3	$19 < X \leq 53$	Enough	16	76,19%
4	$14 < X \leq 19$	Not Enough	0	0,00%
5	$X \leq 14$	Very less	0	0.00%
Amount			21	100%

### 3. Evaluation Factor

Descriptive statistical research data regarding the implementation of PJOK-based learningI in Central Maluku Middle School (Masohi) based on the evaluation factor, the lowest score was obtained (minimum) 13, the highest score (maximum) 25 , (mean) 19,05 ,(median) 20, the most frequently occurring value (mode) 14, standard deviation (SD) 4,05.

When displayed in the form of Assessment Norms, the implementation of PJOK-based learningI in Maluku Junior High School based on evaluation factors presented in table 5 as follows:

**Table 5.** Norms for Assessment of the Implementation of HOTS-Based PJOK Learning in Middle Maluku Middle Schools Based on Evaluation Factor

No	Interval	Category	Frequency	%
1	$21 < X$	Very good	4	19,05 %
2	$17 < X \leq 21$	Good	5	23,81%
3	$13 < X \leq 17$	Enough	10	47,62%
4	$9 < X \leq 13$	Not Enough	2	9,52%
5	$X \leq 9$	Very less	0	0,00%
Amount			21	100%

The implementation of PJOK learning is basedI in Central Maluku (Masohi) based on evaluation factors were in the category of "very poor" at 0.00% (0 teachers), "less" at 9.52% (2 teachers), "enough" at 47.62% (10 teachers ), "good" by 23.81% (5 teachers), and "very good" by 19.05% (4 teachers). Based on the average value, which is 14.62, the implementation of PJOK-based learningI in Central Maluku (Masohi) is based on evaluation factors in the "enough" category.

### DISCUSSION

Based on the results of the study, the implementation of HOTS-based PJOK learning in Central Maluku Middle School (Masohi) was in the sufficient category. An educator or teacher is very important to realize a better education. As Feturan & Hastuti (2017) said that teachers are professional educators with the main task of educating, teaching, guiding, directing, training, assessing, and evaluating students in early childhood education through formal education, basic education and secondary education which require them to have certain competencies. Based on the

results above, it shows that the implementation of HOTS-based PJOK learning in Central Maluku Middle Schools (Masohi) is still not maximally applied during learning. In the teaching and learning process, teachers should be able to change learning patterns in a comprehensive manner based on higher order thinking skills and activity based. The way that can be done to adopt this is to develop lesson plans, implementation of learning, and authentic HOTS-based assessments for each lesson. However, in practice the development of HOTS-based authentic planning, implementation and assessment is not something that is easily carried out by teachers. Besides the

teacher having to really master the material and learning strategies, the teacher is also faced with challenges with the environment and the intake of the students he teaches. The way that can be done to adopt this is to develop lesson plans, implementation of learning, and authentic HOTS-based assessments for each lesson. However, in practice the development of HOTS-based authentic planning, implementation and assessment is not something that is easily carried out by teachers. Besides the teacher having to really master the material and learning strategies, the teacher is also faced with challenges with the environment and the intake of the students he teaches. The way that can be done to adopt this is to develop lesson plans, implementation of learning, and authentic HOTS-based assessments for each lesson. However, in practice the development of HOTS-based authentic planning, implementation and assessment is not something that is easily carried out by teachers. Besides the teacher having to really master the material and learning strategies, the teacher is also faced with challenges with the environment and the intake of the students he teaches.

PeHOTS-based learning in the current curriculum can be done by compiling competence achievements that answer not only at C-1 (knowing), C-2 (understanding), and C-3 (applying), but also at C-4 (synthesis) levels. / analysis), C-5 (evaluation), and C-6 (creating). Learning to think critically as a feature of HOTS is not like learning about the material directly. Critical thinking is related to how to solve problems that are interrelated with one another. Critical thinking allows students to find the truth amidst the events and information that surround them every day. Through critical thinking, students will experience a systematic process that allows them to

formulate and evaluate their own beliefs and opinions.

Implementation of HOTS-based PJOK learning in Middle Maluku Middle School (Masohi) based on planning factors in the "enough" category. The HOTS assessment comes from HOTS-based learning planning with the characteristics of one of the indicators and learning objectives used, namely the dominant use of cognitive level 3, namely C4-C6. Then from the goals that have been set, learning steps are made that reflect HOTS learning. Learning planning must begin with an understanding of the meaning and purpose, as well as mastering the theoretical and practical elements contained therein. The ability to plan is the first step for teachers and prospective teachers, as well as theoretical knowledge, basic skills, and an in-depth understanding of learning objects and learning situations.

## CONCLUSION

Based on the results of data analysis and exposure described above, it can be drawn. Based on the results of data analysis and discussion, it can be concluded that the implementation of HOTS (Higher Order Thinking Skill)-based PJOK learning in Central Maluku Middle Schools is in the "very poor" category of 0.00% (0 teachers), "low" of 0.00 % (0 teachers), "enough" at 71.43% (15 teachers), "good" at 28.57% (6 teachers), and "very good" at 0.00% (0 teachers). Based on the average value, which is 60.03, in the "enough" category.

## REFERENCES

- Abosalem, Y. (2016). Assessment techniques and students' higher-order thinking skills. *International Journal of Secondary Education*, 4(1), 1-11.

- Afandi & Sajidan. (2018). Stimulasi keterampilan berpikir tingkat tinggi (S. Alfandi (ed.)). UNS PRESS.
- Anderson, L. W., & Krathwohl, D. R. (2017). Kerangka landasan untuk pembelajaran, pengajaran, dan asesmen (revisi taksonomi pendidikan bloom), cetakan kedua. Terjemahan Agung Prihantoro). Yogyakarta: Pustaka Pelajar.
- Arikunto, S. (2015). Prosedur penelitian suatu pendekatan praktek. Jakarta: PT Bina Aksara.
- Conklin, W. (2011). Higher-order thinking skills to develop 21st century learners. *Teacher Created Materials*.
- Fitrianawati, M., Hendroanto, A., & Widayati, W. (2019, September). Pelatihan pembelajaran berbasis HOTS dan pendidikan matematika realistik bagi guru SD di Kabupaten Sleman. In *Prosiding Seminar Nasional Hasil Pengabdian Kepada Masyarakat Universitas Ahmad Dahlan* (Vol. 1, No. 1, pp. 703-710).
- Hastuti, T. (2011). Pemahaman mahasiswa program studi Pendidikan Jasmani Kesehatan dan Rekreasi FIK UNY angkatan 2010 terhadap peraturan permainan bolabasket. *Jurnal Pendidikan Jasmani Indonesia*, 8(2).
- Helmawati. (2019). Pembelajaran dan Penilaian Berbasis HOTS Higher Order Thinking Skills.
- Lusyana, E., & Wangge, M. (2016). Increasing Higher Order Thinking Skill to Build Students' s Character by Using Mathematical Reasoning. In *Proceeding of 3rd International Conference On Research, Implementation And Education Of Mathematics And Science* (pp. 119-126).
- Maleong, L. J. (2012). Metodologi Penelitian Kualitatif. Bandung: Remaja Rosdakarya.
- Nugroho, A. (2018). HOTS Kemampuan Berpikir Tingkat Tinggi Konsep, Pembelajaran, Penilaian, dan Soal-soal. Jakarta: PT Gramedia Widiasarana Indonesia.
- Paturusi, A. (2012). Manajemen pendidikan jasmani dan olahraga. Jakarta: Rineka Cipta.
- Prasetyo, E. (2017). Pengaruh Model Inquiry Learning Dan Direct Instruction Dalam Pendidikan Jasmani Terhadap Kemampuan Berpikir Kritis Siswa Sekolah Menengah Pertama. *Didaktik: Jurnal Ilmiah PGSD STKIP Subang*, 3(1), 48-56.
- Rapih, S., & Sutaryadi, S. (2018). Perspektif guru sekolah dasar terhadap Higher Order Thinking Skills (HOTS): pemahaman, penerapan dan hambatan. *Premiere Educandum : Jurnal Pendidikan Dasar Dan Pembelajaran*, 8(1), 78. <https://doi.org/10.25273/pe.v8i1.2560>
- Sudijono, A. (2015). Pengantar statistik pendidikan. Jakarta: Rajawali Pers.
- Supriatna, E., & Wahyupurnomo, A. M. (2015). Keterampilan Guru dalam Membuka dan Menutup Pelajaran Pendidikan Jasmani Olahraga dan Kesehatan di SMAN Se-Kota Pontianak. *Jurnal Pendidikan Jasmani Indonesia*, 11(1), 67-73. <file:///C:/Users/Acer/Downloads/8173-20778-1-SM.pdf>
- Sutanto. (2016). Buku pintar olahraga. Yogyakarta: Pustaka Baru Press.
- Tanujaya, B., Mumu, J., & Margono, G. (2017). The Relationship between Higher Order Thinking Skills and Academic Performance of Student in Mathematics Instruction. *International Education Studies*, 10(11), 78. <https://doi.org/10.5539/ies.v10n11p78>
- Usmaedi, U. (2017). Menggagas Pembelajaran HOTS Pada Anak Usia Sekolah Dasar. *Jurnal Pendidikan Sekolah Dasar*, 3(1), 82. <https://doi.org/10.30870/jpsd.v3i1.1040>
- Utami, M. S., & Purnomo, E. (2019). Minat siswa sekolah menengah pertama terhadap pembelajaran atletik The



interest of students of junior high school on athletic learning. *Jurnal Pendidikan Jasmani Indonesia*, 15(1), 12–21. <https://journal.uny.ac.id/index.php/jppi/index>

- Dinna R, A, R. P. W. (2019). Peran Pendidikan Berbasis Higher Order Thinking Skills (Hots) Pada Tingkat Sekolah Menengah Pertama di Era Society 5.0 Sebagai Penentu Kemajuan Bangsa Indonesia. *EQUILIBRIUM : Jurnal Ilmiah Ekonomi Dan Pembelajarannya*, 7(2), 137. <https://doi.org/10.25273/equilibrium.v7i2.4779> .
- Yani, A. (2019). Cara Mudah Menulis Soal HOTS Suatu Pendekatan “Jarak Nalar” yang dilengkapi dengan pembelajaran berorientasi keterampilan Berpikir Tingkat Tinggi.