The Development of Cooperative Learning Model Based on Local Wisdom of Bali for Physical Education, Sport and Health Subject in Junior High School

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Abstract. The purpose of this research is to develop a cooperative learning model based on local wisdom (PKBKLI) of Bali (Tri Pramana’s concept), for physical education, sport, and health learning in VII grade of Junior High School in Singaraja-Buleleng Bali. This research is the development research of the development design chosen refers to the development proposed by Dick and Carey. The development of model and learning devices was conducted through four stages, namely: (1) identification and needs analysis stage (2) the development of design and draft of PKBKLI and RPP models, (3) testing stage (expert review, try out, and implementation). Small group try out was conducted on VII-3 grade of Undiksha Laboratory Junior High School in the academic year 2013/2014, large group try out was conducted on VIIb of Santo Paulus Junior High School Singaraja in the academic year 2014/2015, and the implementation of the model was conducted on three (3) schools namely SMPN 2 Singaraja, SMPN 3 Singaraja, and Undiksha laboratory Junior High School in the academic year 2014/2015. Data were collected using documentation, testing, non-testing, questionnaire, and observation. The data were analyzed descriptively. The findings of this research indicate that: (1) PKBKLI model has met the criteria of the operation of a learning model namely: syntax, social system, principles of reaction, support system, as well as instructional and nurturing effects, (2) PKBKLI model is a valid, practical, and effective model, (3) the practicality of the learning devices (RPP), is at the high category. Based on the research results, there are two things recommended: (1) in order that learning stages (syntax) of PKBKLI model can be performed well, then teachers need to have an understanding of the cooperative learning model of Student Team Achievement Division (STAD) type and the concepts of scientifically approach well, (2) PKBKLI model can be performed well on physical education, sport and health learning, if the teachers understand the concept of Tri Pramana, therefore if the physical education, sport and health teachers want to apply this PKBKLI model, they must first learn and master the concept of Tri Pramana well.

1. Introduction
Various “miserable” phenomena related to the duties of physical education, sport and health subject are easily found in daily life as well as in national research reports, such as: a) the deviant behavior among teenagers is getting higher and varies. The phenomena of motorcycle gang deviant behavior, fighting between students, drug abuse, and sexual deviant is still quite often the headlines of national newspapers. Life patterns of sedentary (sedentary lifestyle) such as longer in watching TV, video, play station, is experienced by about two thirds of children, especially in the developing countries. Students who like cheating, play truant, and often copy-paste the tasks.
Data SDI 2006 on the physical fitness of the Indonesian people stated that 37.40% in the category of least; 43.90% less; 13.55% average; 4.07% good; and only 1.08% excellent [2]. Kinesthetic intelligence test results of IV grade elementary school students in the District of Buleleng, Bali in 2011 is in the category of less [3]. Budiawan et. al research [4], conducted on junior high schools in Singaraja Buleleng regency Bali gave conclusion that the components of physical fitness of students are still low. Based on the research results conducted by Yoda [5], that physical fitness level of XI and XII grade students of SMA Negeri 4 Singaraja Buleleng in the academic year 2008/2009, is least (64%). Only 2% of physical fitness level of students is classified well.

The phenomena and research results described above indicate that the implementation of physical education, sport and health learning either in elementary school, junior high school, or high school, especially in Buleleng regency- Bali is not optimal. The miserable conditions of physical education, sport and health learning quality on elementary school to secondary school has been presented and analyzed in various forums by some observers of physical education and sport. Based on the observation results of the implementation of physical education, sport and health learning on VII grade of Junior High School in Singaraja Buleleng Bali. Several factors that cause the slump are: First, learning models used have not been local wisdom oriented. The learning model tends to be centered on the teacher (teacher centered). The exercises are almost never done by the students for their own initiative (student centered). The application of such learning model often ignores the tasks of teaching and not in accordance with the culture of the students. This condition indicates that the truth of idiom stating that up to now the attention to local wisdom is not maximized so that learning process becomes dry or meaningless, leaving many students unable to master competencies that must be mastered by the students in learning the material [6]. Second, because the learning model used by physical education, sport and health teachers of VII grade of Junior High School in Singaraja is inconsistent with the character of the students and physical education, sport and health itself, so when viewed from the application of ethical and moral values, collaboration capabilities, as well as the polite behavior of the students, in an effort to build Indonesian people with character through physical education, sport and health learning in schools, especially at the junior high school in Buleleng regency Bali, is still far from the expectations. In fact, one of the competencies to be achieved through physical education, sport and health learning in curriculum is to respect and to appreciate the behavior of honest, discipline, responsible, caring (tolerance, mutual assistance), mannered, and confident in interacting effectively with the social and natural environment in a range of social and existence [7]. Third, the learning model used by physical education, sport and health teachers make the students join the lesson passively and pay less attention to the teachers explanation. It is caused by the learning does not use the students’ environment, especially the local culture of the students. The role of circumstances condition in learning determines the success of the students in learning. The circumstances meant are the physical, social, and cultural environment. A conducive environment will encourage the process of learning, and on the other hand, less conducive environment will hinder the learning process [8]. Although there as availability of learning facilities in adequate amount, students will not be able to develop their ability if their mind are confronted and refused the learning method. Its created them to be passive [16], and the teacher habits in application of learning model will greatly influence the learning behavior of their students [1]. A research by Shoval describe that it emerged from the present study that beginning teachers need to get meaningful support by: having the opportunity to learn methods to enable them to teach moral values [22]. The harmony of all audible components of learning should heard like an acoustic sounds. Thus would create a conducive learning condition for students [23]. In accordance with that thing then culture are very necessary to be considered in planning and implementing the learning process such as the following statement: "Cultural and social differences should be recognized because they can affect such things as the ability to take responsibility for individualized work or to engage in creative activities" [6]. The quote shows that the students differences in socio-cultural should be the physical education, sport and health teacher's attention especially in planning and selecting the learning model, as it will affect the ability of the individuals to work independently and in a creative activity.
Cooperative learning model based on local wisdom (PKBKL) of Bali is a learning model that collaborate the cooperative learning model with the concept of Tri Pramana which is a concept of building knowledge in three ways, namely: 1) by direct observation or perform (pratyaksa pramana), 2) through trustworthy sources (book, people) (sabda pramana), and 3) through thought or analysis of existing symptoms (anumana pramana) [6]. It is essential for physical education teachers to improve their quality in learning methods, thus students could gained learning experiences that will be brought for their future [15]. Instructional communications skills of teacher such as newest one is positions against receiver that would improve student’s communication skills [19]. The teacher could do a reflection of learning process in order to improve their knowledge and skills of learning methods [20].

Based on the description above, the problem to be solved is "How to develop cooperative learning model based on local wisdom in junior high school? In accordance with these problems, the purpose of this research is to develop a cooperative learning model based on local wisdom in junior high school.

2. Method
This research is focused on the development of a learning model, so the approach and methods used in this research are research and development / R & D model, with the design of the development chosen refers to the development proposed by Dick & Carey as shown in figure 1.

The development of learning model is conducted through three stages: (1) identification and analysis of needs stage, (2) the development of design and draft of PKBKL models stage, and (3) the testing stage (expert review and try out).

![Dick and Carey’s Model Development Stages](image)

Small group try out was conducted on VII-3 grade of Laboratory Undiksha Junior High School students in the academic year 2014/2015, large group try out was conducted at three (3) schools, namely SMPN 2 Singaraja, SMPN 3 Singaraja, and Laboratory Undiksha Junior High School in the academic year 2014/2015. While the product testing was conducted on VIIb grade of SMP Santo Paulus Singaraja in the academic year 2014/2015, and data were collected using documentation, testing, non-testing, questionnaire, and observation. Data analysis was performed by descriptive, qualitative, and quantitative. Validity, practicality, and effectiveness of the model were analyzed descriptively with the following criteria.

PKBKL Model is considered valid, if it meets the following criteria: (1) More than half (50%) validators state that this learning is based on a strong theoretical; (2) More than half (50%) validators state that the components of this model are consistently interrelated; and (3) The try out results show the components of this learning model are interrelated (6). PKBKL model is said practical, if it meets the following criteria: (1) More than half (50%) validators give consideration that this learning model can be applied in the classroom; (2) Teachers state that they can apply this model in the classroom; and (3) The level of adherence to this model should be high. PKBKL model is said to be effective, if it meets the following criteria: (1) Activities of students in following this learning is high; (2) Student study achievement is fair that is minimum 85% of students learning outcomes are in good categories and meet the minimum completeness criteria (KKM) 85% of all students; and (3) At least 85% of students have
positive response. Positive responses are characterized by students’ answers majority 4 and 5, while the negative responses are characterized by the students' answers 1, 2, and 3 on a scale of five [6].

3. Result

Based on the result of needs analysis, it is obtained conclusion that the differences between learning model currently used by physical education, sport and health teachers and cooperative learning model based on local wisdom (PKBKL) of the development results in this research. The differences of principles are particularly noticeable on the models components namely syntax, reaction principles, social systems, and the supporting system of both models.

The results of the experts’ testing, small group try out, field testing, and product testing, the model development of PKBKL has met the criteria of operation of a learning model i.e.: syntax, social system, principles of reaction, support system, as well as instructional and nurturing effects. The results of the experts’ testing, small group try out, large group try out, and the implementation of PKBKL model also have qualified validity, practical, and effective, in which the results showed: (a) The validity of the model, in the experts’ testing 100% validators stated that PKBKL model was based on strong theory, and all validators (100%) stated that the components of the models were interrelated. Either testing results of small group or large group try out 100% validators stated that PKBKL model was based on strong theory and the components of the model were interrelated; (b) Practicality of model, in the expert testing more than 50% validators stated that PKBKL model can be applied in the classroom, and the teachers stated that they can apply this learning model in the class room. The result of small group try out the mean adherence of PKBKL model is 93.7%, which shows that the level of adherence to the model is in very high category). (c) The effectiveness of PKBKL models from the test results of small groups that can be seen from the students activities, learning outcomes and the students’ responses to the implementation of PKBKL model have met the requirements, in which the learning activities of the students are classified in the category of very high/ very active, the average of the students learning outcomes are classified as good and very good with KKM percentage ≥ 85%, and the students' responses to the implementation of PKBKL model are relatively positive. Overall. The mean of large group try out/ field testing is the mean adherence to the model is 92%, which indicates that the level of adherence to the model is in very high category.

The results of large group try out on the effectiveness of PKBKL model is visible from the students’ activity, 92.9 following the study belongs to very active, the students’ achievement seen from the results of student learning above 70% is in good category with KKM ≥ 85%, and the students’ responses to the overall PKBKL model are above 85% positive, then the PKBKL model on large group try out has been qualified the effectiveness. In other words, the PKBKL model is effectively applied in the implementation of physical education, sport and learning. The results of the implementation of PKBKL model in real situations can be reported as follows.

The implements of PKBL model on SMP Negeri 2 Singaraja related to the students’ learning outcomes of the four items, all aspects of competence are above criteria set out in this research that is at least 70% is in the category good. It also happens to the minimum completeness criteria in every aspects of students’ competence is above the criteria set that is minimally meets KKM 85%. Thus the overall average of students’ KKM is 95.5%. When converted into competency criteria, the overall average of students’ learning outcomes are in good and excellent categories. Student’s activity showed that, in average 94.9 students found they had tasted and conducted learning activities as expected in physical education, sport and health learning by applying PKBKL model, and only in average of 5.1 students who performed activities beyond the expected. As many as 94% students give positive response to the application of PKBKL model.

While the implementation of PKBKL model at SMP Negeri 3 Singaraja obtained the following result. Average of 96.9 students found they had felt and performed the learning activities as expected in physical education, sport and health learning by applying PKBKL model, and only an average of 3.1 students who performed activities beyond the expected. Students learning outcomes of the four items,
all aspects of competence are above criteria set out in this research that is at least 70% in good category. It also the case with minimum completeness criteria in every aspects of student’s competence is above the criteria set that is minimally meets KKM 85%. Thus the overall average of students’ KKM is 95.75%. When converted into competency criteria, the overall average of student learning outcomes is in good category. All students (100%) gave positive response. Based on the criteria of the students responses target which have been determined in this research that is minimally 85% of the students had positive response, it can be concluded that the students’ responses to the implementation of physical education, sport and health learning with PKBKBL model, is classified as positive or in other words, the positive response given by the students on PKBKBL implementation is ≥ 85%.

The results of the implementation of PKBKBL model on SMP laboratory Undiksha is as follows. Average 97.1 of students found they had felt and performed the learning activities as expected in physical education, sport and health learning by applying PKBKBL model, and only an average 2.9 of students who performed activities beyond the expected. Students’ learning outcomes of the four items, all aspects of competence are above criteria set out in this research that is at least 70% category is good. It also the case with minimum completeness criteria in every aspects of students’ competence is above the minimum criteria set that is minimally meets KKM 85%. Thus the overall average of students’ KKM is 94.5%. When converted into competency criteria of overall students’ learning outcomes, it in good category. All students (100%) gave positive response. Based on students’ response target criteria set out in this research that is minimally 85% of the students have positive response, it can be concluded that the students’ responses to the implementation of physical education, sport and health learning with PKBKBL models is classified positive.

4. Discussion
From the above results, then PKBKBL model has met the valid, practical and effective criteria. It means that PKBKBL model is a model designing physical education, sport and health learning based on strong theoretical concept, components of the model are related to each other, can be implemented practically in classroom/field, can increase the activity of students in following physical education, sport and health, and can improve students’ achievement in physical education, sport and health subject.

The syntax of learning with PKBKBL model consists of six phases in which in each phase it is obviously seen the concept of Tri Pramana either in the activities of teachers or students’ activities using scientific approach, in accordance with the implementation of 2013 curriculum. Curriculum fidelity describes the extent to which a curriculum is implemented faithfully as planned. Curriculum fidelity issues may arise, could be an innovation of it when teachers implement the curriculum inconsistently due to differences in philosophy, barriers in the setting, or other local concerns [21]. The learning process becomes an important part which determines the overall quality of education, and teachers have a central role in improving the quality of learning process [18]. Utilization of Tri Pramana’s concept in the activities of teachers and students, can have an impact on the provision of comprehensive understanding either from the teacher as transferor of science and information, or by students as recipients of knowledge and information on the material being studied, resulting in an increase in the students’ academic self-concept namely students’ self-confidence on their academic abilities. Students who have confidence on the ability of good academic will bring positive impact on learning achievement. In accordance with this, according to Covert, people who consider their level of efficacy is fairly high will try harder, to achieve more and more persistent in performing tasks than those who consider their efficacy is low [11].

In line with the statement, after reviewing a lot of researches about self-efficacy, at different age groups both in the laboratory setting and in the real world, Bandura and Locke (2003) stated that: the belief on efficacy does not only predict the function of the behavior among individuals in different level of self-efficacy assumption, but also predict the changes in an individual's function at different levels of self-efficacy from time to time and even predict the variations in the same individual to perform successful or fail tasks [11]. Considering that PKBKBL model is the combination of cooperative learning
model and the concept of Tri Pramana thus creating an ideal learning model for the implementation of physical education, sport and health learning in Junior High School.

In physical education, sport and health learning in the classroom/field with PKBKL model, the students will be facilitated so that students can succeed together academically. Class is seen as a synergy or coherence of the very heterogeneous characteristics of its members, and students work together in harmony and give mutual respect to bring hope and potentials come true. With this PKBKL model, each students learns to listen to the views of other students, helps the learning process of students who seems less capable, respects the strengths and weaknesses of each, and contribute academically to the interests of a group or class. The students in the class/field, also worked together to solve the big problems which are likely to be unsolved through cooperative and collaborative group of work, sharing experience and knowledge from different perspectives to enrich ideas and academic thinking as well as to build consensus, to solve the practical problems encountered together in an integrated group. From the research conducted in 2015 by Subanji, it conclude that the importance of student interactions while thinking in a group discussions in order to generate problem answers that reflect their decision together. Thus process describe there some points become an internalization of the values of knowledge into students behavior and become as characterized themselves, it means the students become an open mind and appreciative the opinions of others, and able to take decisions by consensus [17]. This PKBK model can also provide learning experience in a whole to the students about the materials studied so that students feel more confident with their abilities so that the tasks assigned by the teachers either in a group or individual are performed as well as possible and full of responsibility, which brings impact on the learning process and better study results. The learning process becomes an important part which determines the overall quality of education, and teachers have a central role in improving the quality of learning process [18].

The results of this research are supported by some of the results of similar researches: (1) Padma Dewi, Artini, and Kerti Nitiasih found significant increase in the ability of reading, writing, listening and speaking on elementary school students in Bali after the implementation of English learning model based on culture; (2) Suastra, Tika, and Kariasa that there is significant increase on science learning achievement of junior high school students in Buleleng regency with the application of science-based local culture learning model in the treatment group compared to the application of regular learning models in control group; (3) Gita, Ardana, and Mahayukti, also reported the results of similar researches, with the adoption of non-directive teaching model (NDTM) local culture oriented to the learning of mathematics on Elementary School students in Buleleng, with the result that NDTM model is very practically and effectively applied to the learning of mathematics in elementary school; (4) the results of Subagia and Lanang Wiratma research stated that learning implemented using learning cycle model based on local wisdom of Balinese (Hindu) can increase the activity of students in learning, both participating at the time of receiving information or when doing group work; and (5) Ardana reported that by applying mathematical learning model with vision of constructivism oriented on students’ cognitive style and culture, is very effective in improving the study outcomes in mathematics [6,8,9,12,13].

5. Conclusion

Based on the experts’ testing results, small group try out, field testing, and product testing, as well as the discussion of the results research results, it can be concluded as follows. (1) The development of PKBK model has met the operation criteria of learning model namely: syntax, social system, principles of reaction, support system, as well as the impact of instructional and nurturing effects; (2) the results of the development of PKBK model have qualified validity, practical, and effective requirements, and PKBK model has been able to improve the students’ learning outcomes of VII grade SMP in Singaraja.
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