

Phenomenological Study of Experience and Meaning on K-13 Implementation by Elementary Physical Education Teacher in Purworejo Regency

Muhamad Sigid

Master Program in Sport Sciences

Universitas Negeri Yogyakarta

Yogyakarta, Indonesia

muhamad.sigid2016@student.uny.ac.id

Caly Setiawan

Faculty of Sport Sciences

Universitas Negeri Yogyakarta

Yogyakarta, Indonesia

csetiawan@uny.ac.id

Abstract—the aim of the research was to discover the experience and meaning of the implementation of curriculum 2013 especially for physical education teachers of primary school. This research made use of phenomenological method through the use of observation, interview, and documentation. The data was analyzed with the use of descriptive qualitative analysis through the collection of data, reduction of data, data display, and conclusion/verification. The object of this research was the physical education subjects and teachers in primary schools of Purworejo Regency. This research was founded on the submission that an optimal learning is supported by a creative and professional teacher. Textual description of the meaning of K-13 implementation includes (1) role of basic knowledge and competence, (2) scientific approach, (3) authentic assessment, and (4) inhibiting and driving factors. In addition, structural description shows the learning setting of physical education in K-13 implementation. As a consequence, the experience essence meanings are (1) physical education of primary school, (2) scientific approach, and (3) authentic assessment.

Keywords—*experience, meaning, physical education curriculum.*

I. INTRODUCTION

There is nothing permanent in this world. Everything changes with time. This is applicable for the physical education curriculum of primary schools in Indonesia. The curriculum changes from competency-based curriculum to school-based curriculum (KTSP in Indonesia) and later to curriculum 2013. Curriculum 2013 or what is known as K-13 is the present official curriculum in Indonesian primary schools.

The importance of Physical education in improving health cannot be over-emphasized. For instance, Futsal can maintain bone mass at childhood as well as adolescent stage [13]. Furthermore, it can also form new bone tissues. This happens because human weight pressure causes body to release old bone tissue and form new ones. Apart from this, there is improvement of cardio metabolic health after maintenance of physical activity for 36 weeks [1].

To fully utilize the purpose of physical education, there is development of several learning models. Model to deliver subject material influence the student's result on learning. In this case, K-13 is designed to incorporate recent models, of which cooperative method is part of. Cooperative method

places on emphasis on responsibility and social interaction. There is also capacity for the teachers when this model of learning is implemented [3].

Apart from cooperative method, K-13 also applied scientific approach. This approach requires the creativity of teachers and it is based on inquiry with the 5E model (*engage, explore, explain, elaborate and evaluate*) [10] and skills [2] that can bring about the increment of this approach. The aim of scientific approach is to make students have the capability of thinking scientifically.

A question is one of the forms of evaluations. A good question can construct thinking process of students. Also, their argumentation must contain data and objection [5]. There is need for the evaluation of the question data so as to track the development of the students. Physical education learning results are obtained not only by practice but also through words spoken and interview [15] and they involve knowledge, skill, and attitude aspects. In addition, physical education sees students thoroughly.

Self-assessment can be applied in measuring pedagogy [8]. Self-assessment is a technique employed in evaluating oneself. This assessment is founded on reference which has already been set. It resulted from a set of systematic process that involves collection of data from test instrument and interpretation of the data. The test instrument is not made only for a specific population but also has to do with the students' difficulty level [6]. The obstacle encountered in processing values can reduce the validity of the value.

Education organizer must obey education reformation [11]. Government maintains education quality through implementation of new curriculum. Government also conducts Teacher Competency Test (UKG in Indonesia) to improve quality of education. As a result of this, the researcher aims to conduct a research about 'experience and meaning of K-13 implementation for physical education teachers of primary schools in Purworejo Regency'.

A. Structure

1. Experience and meaning of K-13 implementation which the physical education teachers in primary schools in Purworejo Regency has not known yet.

2. For schools and teachers to give criticisms, suggestions, and depiction of K-13 implementation for primary schools in physical education. For the purpose of providing information and suggestions towards future research works
3. Experience of primary school physical education teachers in implementing K-13 along with its meaning.
4. As a teacher, the researcher intensified Teacher Working Group (KKG in Indonesia) and held education training for physical education teachers.
5. The research work is based on one region which is Purworejo Regency.

B. Citation Reference

Physical education gives a child the opportunity of developing and integrating. This education concerns on the participant. Physical activities that make use of motor skill expect students to have reflex motion. Physical education ends up with being a lifestyle since the activity functions to fill someone's spare time [9].

The aim of physical education is to develop physical skill and creativity. Physical education in primary school consists of physical activities like games, gymnastics, dance, swimming, outdoor activity, adventure, and athletic which improve the problem-solving skills of the students. Physical education requires that students move actively [7].

Learning is defined as permanent change of motor-behavior. Learning results from training and experience and change in behavior is caused by learning process. Learning is concluded by measuring students' performance which are affected by several factors such as character, motivation, worry, and disease. The learning process will decrease if an individual stops training [14].

Behaviorism learning theory is suggested by Thorndike, Edwin R. Guthrie and Skinner. Thorndike in [12] states that learning is an interaction process between stimulus and response. There may not be any change of behavior as a result of response if there is no stimulus. Response to the stimuli is strong if it is followed by satisfactory outcomes. Some changes of behavior can easily be observed while others cannot. When a teacher asks the students to do some kind of practice it is known as a stimulus, if it makes the students to think and carry out the activity they are asked to do, it is called as response.

Learning theory by Edwin R. Guthrie in [12] states that the relationship between stimulus and response is temporary. The stimulus must be continuous to maintain the relationship. A response will be stronger or becomes a habit if it is connected with various responses. Contiguity relation (side by side in one connection) between stimulus and response will lead to a connection between them. Teaching and learning activity require constant practice. Thus, stimulus can be given in theory and then followed by practice. Theory followed by practice makes changes in behavior easier.

Learning theory from Skinner in [12] is operant conditioning. In this theory, environmental aspects (stimulus, situation and event) plays a role in giving sign to a response. It strengthens the response and increase the possibility of the response occurring again in the future. Every stimulus interacts with each other and it affects the response given. The response

given emerges with various consequences until it affects behavior. Therefore, understanding behavior requires understanding response as well as its consequences.

According to the definition above, it can be concluded that learning is a constant change of behavior and that it results from the process of interaction with the environment. Learning also aims to develop affective, cognitive and psychomotor aspects. Based on behaviorism theory, change of behavior exists because of a fun stimulus which results in a stronger response. Unpleasant stimulus causes unrepeated behavior.

Therefore, according to the Curriculum 2013, the steps in teaching include: (a) introduction (greeting, presence/called one by one, indicator, value format, apperception, and stretching), (b) main part (classical, group, and individual learning), (c) evaluation (written test, practice, remedial and enrichment activity), and (d) Reflection.

The instrument of evaluation of primary physical education formulated by the Ministry of Education and Culture, Directorate General of Primary Education is the Directorate of Primary School Development 2013 and they are (a) main competence assessment 1 spiritual (pray, obedience, gratitude, and tolerance), (b) main competence assessment 2 social (honesty, discipline, responsibility, polite, care and confident), (c) main competence assessment 3 (multiple choice, short answer, and essay), and (d) main competence assessment 4 (all practices are evaluated).

II. LITERATURE REVIEW

As a result of the fact that the arrangement of education system is done by curriculum policy, teachers must obey and do everything within the curriculum [16]. K-13 has general standard for all school from its curriculum and text book. On the long term, obstacles in the implementation of curriculum may result in formation of health and active lifestyle during lifetime.

Apart from the use of recent approach, K-13 also uses authentic assessment. It is one of the methods used in evaluating learning process. Students are evaluated on how well they have developed in learning. Learning is not just the transfer of knowledge to the students but also a complex relationship on how students master the interaction process in learning [17].

III. METHODOLOGY

A. Data

Data or information which becomes material in this research are primary and secondary data. Primary data were obtained through several activities, such as observation and deep interview while secondary data were obtained through documentation. Data was collected by observation, interview, and review of literatures according to [4].

Observation is the systematic recording of the examined symptoms and activities. Events or something important are recorded without particular rule. Observation is a complex process which consists of biology and psychology processes. In observation technique, the most important thing is observing and remembering. In this research, the observation aimed at seeing the learning process of physical education teachers of primary schools in Purworejo. Observation guidance or assessment guidance of learning implementation in class were

used as instruments of research. The guidance was arranged based on the standard of learning process. Consequently, the observation was carried out by recording interesting or supporting problems of the objects of research.

Interview has to do with the collection of data face to face, through chatting, between individuals or group. Interview is a data collection technique that uses interview guidance. In this research, interview was conducted to have an in-depth understanding of the implementation of curriculum 2013 for physical education teachers of primary schools. The data from this interview may be in form of statements, opinions, suggestions, and expectations which were analyzed and interpreted.

Literary review was used to gather data directly from the research place, relevant books, regulations, activity reports, journals, images, documentary movie, and other relevant data. This data was used in testing, interpreting, and even predicting the answers to the research problem. In this research, literary review was done to support, complete, confirm, and understand the observation and interview result in order to make this research clear and complete. The documents which were obtained to get a better understanding include the syllabus and lesson plan, activity report, and image. For the purpose of getting accurate data, triangulation technique of data collection method was done through the collection of the same information with different method and collection of data with the same method towards different data source.

B. Method

Qualitative approach was applied since this kind of research requires deep observation. The data used in this research were not numbers but words, sentences, paragraphs and documents. As a result of this, this research can be classified as a qualitative research. The data were collected through the use of interview and direct observation, which were inductively analyzed.

Qualitative research methodology is a research procedure whose outcome comes in form of descriptive data such as written words or spoken informant and observed behavior. Qualitative research uses scientific setting, scientific method, and people who are concerned by scientific things. Phenomenological approach was selected for the purpose of this research so as to test the real social phenomenon in detail [4]. In phenomenological view, the understanding of an event and its correlation with general people in a particular condition is of concern to the researcher. The use of phenomenological method aims at describing a symptom or phenomenon from the research object.

Phenomenology is defined as [4]: 1) subjective experience or phenomenological experience; 2) a learning of someone's main perspective awareness. A researcher that makes use of phenomenological approach is trying to understand the meaning of an event and its effect on another human being in a particular situation. Phenomenology as a term is often used as a general consideration to show subjective experience from various type of subject. In a more specific sense, this term refers to discipline research about someone's perspective awareness. Phenomenology is a thought that places emphasis on subjective experiences and world interpretation.

In this case, phenomenologists are trying to get an understanding of the appearance of the world to other people. A phenomenological research tries to understand, dig up, and interpret the meaning of events, and its relation to general people in a particular situation. Usually, it is called a qualitative research because it uses observation of social phenomenon based on what happens in field.

According to [4], the phenomenological approach does not assume to know what is important for other people. Phenomenology start a research with silence to know what will be examined. This research focuses on the human subjective aspect, tries to enter conceptual object world in order to understand how and what meaning that is constructed around a particular event in daily lives. This approach believes there are many ways to come up with the interpretation of experience through another person's experience toward another and this is known as the real experience. All qualitative branches believe that to understand a subject is by seeing the point of view of the subject itself. As a result of this in conducting this qualitative research, the researcher constructed the research based on the observed subject point of view of curriculum 2013 for physical education teachers of primary schools in Purworejo.

This research consists of three variables. The first independent variable is experience, an event that has been experienced long before or recently (done, felt, bore etc.). The most important thing in experience is the meaning and lesson after it. The second independent variable is meaning which is defined in the Indonesian Dictionary (KBBI) as purpose. The dependent variable is the implementation which is known as conduct or applies in KBBI.

IV. RESULTS AND DISCUSSION

A. Results

The aim of this research is to know the experience of physical education teachers in primary schools when they teach and the meaning they attach to experience. The analysis of the results is classified into two meanings/themes. The meaning units are 'experience and physical education learning' meaning. In this part, the researcher presented meaning unit as the product of horizontalization, textual and structural descriptive, and learning essence of physical education in primary schools.

Horizontalization: meaning unit of experience of learning physical education. The product of horizontalization is the construction of meaning or theme. The results were presented from the simplest to the most complex. Table 1 contains meaning unit with the example of the interview.

Textual Description: experience of learning physical education. The researcher focused on the experience of learning physical education in primary schools. The experience was further divided into sub-theme as follows: "the role of basic knowledge and competence," "scientific approach," "authentic assessment," "inhibiting and driving factors."

The role of basic knowledge and competence for teacher. Several participants admitted that their knowledge and competence which they have previously mastered have effect on their learning process. For young teachers, this kind of experience was gotten during their education. For several senior teachers, they got their knowledge and competence from various experiences. The experience when someone in education program gives experience in form of learning content.

Most of the participants admitted that lectures that are full of physical activity and exercise make them feel comfortable and improve their confidence to teach. According to Mrs. Oki, “in lecture something was explained and there were theory and practice. There is video and image about this kind of learning. After the theory, the material was practiced in group. So we knew how to handle every kind of student. It really helps.” In particular, the participants identified the subject that assists them in getting ready to teach. For instance, Mr. Sutris pointed out that “in fact, a teacher will find many kinds of student characters that were not introduced when we were in college.” He added that “in the past if there is a theory we have already knew what would we do. Unfortunately, when we really face it, it became difficult.”

In the end, they engage in the development of themselves through the use of pedagogy experiment to teach children. One of the participants said: “Yes, this is my first time of teaching children. I give them video and image on how to do particular exercise, so children will see and they are able to do the exercise like in the video” (Mrs. Oki). Besides their college knowledge, several teachers in this research developed themselves through many professional development activities. What they get is mostly in relation to knowledge on education concept. Mr. Latif said “learning how to overcome lazy children and lack of focus during learning process in class.” Obviously, the teacher becomes exposed to some essential information needed in understanding learning in primary schools.

Pedagogy approach for teachers. The lack of the development of pedagogy competence in teaching physical education in primary schools is considered. In turn, teacher conducts a pedagogy experiment to find precise form and approach in teaching and this include (1) placing all the children in line with another, (2) material and environment, (3) focus and participation, and (4) adjusted value. Firstly, for most participants, the understanding of the idea of primary school is not yet comprehensive. This is as a result of the fact that their education program has not given cognitive development on primary education and apart from the partial development of their ideology. “Yes, I am new to teaching such lazy children. I give them a video and image on how to do particular exercise, so they can see and practice the exercise with joy” (Mr. Muji). Secondly, the articulation of the pedagogy of primary schools is done practically. The material in physical education is dominated by physical activity. This material may be modified in many ways depending on the needs of the students and the facility. Most participants change the rule. For instance, Mr. Darji gives students flexibility to use particular rule according to their need. He said, “the rule which I changed.” If one student knows something, the other should know too, “oh something like this, if one throws with both of his hands it’s called dribble. Just like that.” Beside materials, teachers also adapt from the environment. This environment adaptation is to ensure the safety of the students. Mrs. Tri said “environmental adaptation is important, it influences children’s safety. We first check the environment we use for the learning process. To make sure the children are safe.”

Thirdly, participants seem to feel less optimal on pedagogy competence for primary schools. The data is not enough to reveal that the teachers have made an extensive learning that encompasses cognitive, affective, and psychomotor. The

participation of teachers is more pressing on the physical education teachers in schools.

Fourthly, although most of the teachers place their children in line with another, they still align their scores with their competence. For example, Mrs. Tri conducted an assessment using the competence test. While discussing the result she said that “it is the same sir, but there are differences in their goals. There is a child whose jump is not really good but can reach eighty. The jump is not quite good, but at least he can jump. This is because process and goal are different” (Mrs. Tri).

Scientific learning in K-13 implementation. In this research, every school conducted K-13 with the use of scientific approach. For example, Mr. Latif revealed that “K-13 using scientific approach includes observing, asking, trying, understanding, presenting.” In another school, Mr. Muji teaching methods involve “observing, asking, trying, understanding, and presenting”. Mr. Darji was also found to be “observing, asking, trying, understanding, and presenting.”

Authentic assessment. In this research, teachers of physical education conducted authentic assessment, for example, Mr. Yoyok said that “authentic assessment involves evaluating student’s competence, attitude and knowledge.” Compared with the school-based curriculum, K-13 is mainly concerned with attitude. This is proven by the evaluation of attitude by another student or even teacher. Another physical education teacher, Mr. Latif said that “the assessment includes attitude, competence, and knowledge. Attitude assessment can be done by evaluating fellow teacher. It encourages students to act politely and friendly with everyone.” Mr. Darji said “authentic assessment on knowledge is obtained through written test, competence from practice, and attitude from checklist. Attitude assessment encourage students to have a better character such as praying in school and being responsible in their duties. Yes, perhaps because it is evaluated so they are diligently doing their duty.”

Inhibiting and driving factors. Physical education teachers that made contributions in this study came up with the identification of various inhibiting and driving factors that support learning physical education. Firstly, limited time of learning is one of the things that are considered to be obstacles because of the separation of the venue of exercise and the school. Teachers spend some time guiding students to the venue of the exercise and then back to the school. Mr. Ngadimin said that “it is a little too far.” Hence, they need a professional development activity that is related to their needs in teaching the children. Mr. Muji said “honestly, it feels difficult because I never get K-13 training specifically, so I expect to be invited for training. Well, in the training I expect to be informed on how to teach with K-13. It so needed”. Secondly, apart from the obstacle, participants also revealed that leadership is one of the supporting factors in learning process. Mr. Muji said that “usually, our headmaster gives us support with the use of suggestions to energize us and motivates us to have patience in facing the children.” Mr. Sutris thinks school has important role to play in the provision of facilities. He added that “school supports me in whatever I do in physical education.”

Textual Description: the meaning of physical education learning. Phenomenological approach helps researchers in digging the textual meaning of a concept. The result of the data analysis identified the meaning for them as teachers. The three

sub-themes of meaning include teacher's knowledge, scientific approach and authentic assessment.

Scientific approach is an approach that involves scientific applications in text. This approach is effective in character guidance, systematic thinking, and intellectual thinking. Mr. Muji said that "in scientific approach, children try to solve problem scientifically through high level of thinking". While Mr. Sutris submitted that scientific approach in K-13 encourages students to be active and creative in solving particular problems in learning. For Mrs. Tri, scientific approach involves observing, asking, trying, understanding, and presenting. In observing process, teachers can give example through the use of visual presentations such as video or a movement made by the teacher.

Authentic assessment covers three fields which are attitude, competence, and knowledge. It can be said that authentic assessment carries out evaluations thoroughly. Mr. Latif said that "so, we see there is enthusiasm in watching video and asking for their understanding after the material has explained". For Mrs. Tri, authentic assessment is like "thorough assessment since it includes competence, attitude and knowledge". It was also stated by Mr. Darji authentic that assessment in physical education is like "tied stick in broomstick". He added that "I portray authentic assessment like this, an assessment that affect children development thoroughly."

Structural description in physical education context. From meaning unit and significant statement, researchers came up with the description of the occurrence of learning experience. Structural description focuses on the context where the participant gets his education. The context elements include time and location of physical education training. Firstly, most of the physical education in Indonesia uses outdoor field. There is a schedule rule that the learning process must be in the morning before sun becomes too high.

Secondly, most primary schools conduct physical education in outdoor field. Teacher will conduct the learning in school yard for activity that does not need wide space such as badminton, volley ball, and basketball. Several activities such as gymnastic is conducted in classroom through the use of mattresses. A school that is near a big field or does not have a school yard tends to use the field outside their school.

Experience essence and learning meaning of physical education in K-13. The experience of teachers in teaching children with K-13 varies. The variations come as a result of many factors such as basic knowledge and competence, teaching experience and context which are inhibiting or supporting the learning process. However, their experience of the teachers follows the same pattern. The teachers admitted that it is not easy to teach K-13 as a whole due to inadequacy of their professional program. Pedagogy is one of the experiments but it took time to find the most effective one.

In general, the participants of this research experienced a meaningful experience. As time goes by, they gain more experience even though they are not yet confident. For several teachers, organizer of professional development programs should offer an activity that will increase their competence. Specifically, their competences should not just be about knowledge but should also be related to pedagogy in teaching K-13.

The meaning that was constructed by the teachers in their experience covers the understanding concept of K-13 that scientific approach and authentic assessment become differentiator in previous curriculum. This meaning is tied to their experiment when they give physical activity content and assessment to another teacher. All of these teachers adapted to the content and the environment. Their adaptation includes steps and time to achieve the goals according to their competence. This experience is interpreted as a process.

B. Result Statement

TABLE I. MEANING AND EXPERIENCE IN LEARNING

Meaning unit		Example of statement
Theme	Sub-Theme	
Learning experience	Role of basic knowledge and competence	"Knowledge from college that I use to teach"
	Scientific Approach	"Scientific approach that I know"
	Authentic assessment	"a thorough assessment please!"
Learning meaning	Inhibiting and driving factors	"I as teacher is supported by School"
	Physical education in primary school	"Education through movement according to primary school character"
	Scientific approach	"an approach that demands high level of thinking through observing, asking, trying, understanding, and presenting"
	Authentic assessment	"anassessment that does not only focus on competence but also knowledge and character."

C. Discussion

Ability to educate becomes one of the fundamental factors in teaching experience. Experience and meaning shows an open character when K-13 is implemented professionally. A positive behavior by teacher tends to become an important factor in teaching with the use of K-13 meaningfully. The meaning that is attached to the implementation meaning of K-13 includes physical education of primary schools, scientific approach, and authentic assessment. An attitude assessment of K-13 makes the students to become more active, polite, pray, and keep cleanliness. That a student shows a better character does not stop the school from evaluating their attitude.

V. CONCLUSION

This research examined experience and learning meaning of the implementation of K-13. The researcher made use of phenomenology approach to reveal experience and its essence. Teachers must be well prepared in their college. There must be monitoring of experienced teachers in their profession so as to maintain their quality. The weakness of K-13 will be examined in the future to enable the improvement of the curriculum.

REFERENCES

- [1] R. D. Burns, T. A. Brusseau, J. C. Hannon, "Effect of Comprehensive School Physical Activity Programming on Cardio-metabolic Health Markers in Children from Low- Income Schools", *Journal of Physical Activity & Health* 0(0), (2017) DOI: <https://doi.org/10.1123/jpah.2016-0691>.
- [2] B. Can, V.Y. Demirtaş, E. Altun, "The Effect Of Project-Based Science Education Programme On Scientific Process Skills And Conceptions Of Kindergarten Students," *Journal Of Baltic Science Education* 16 (3), 395-413 (2017).
- [3] A. Casey, A. MacPhail, "Adopting a Models-Based Approach to Teaching Physical Education," *Physical Education and Sport Pedagogy* 23(3), 294–310 (2018).
- [4] J. W. Creswell, "Qualitative Research and Research Design, 3rd Edition," Sage, 2013.
- [5] I. Erdogan, A. Ciftci, and M.S. Topcu, "Examination of the Questions Used In Science Lessons and Argumentation Levels of Students," *Journal of Baltic Science Education* 16 (6), 980-993 (2017).
- [6] N. Frans, W.J. Post, M. Huisman, I.C.E.O. Mostert, A.L. Keegstra, and A.E.M.G. Minnaert, "Early identification of children at risk for academic difficulties using standardized assessment: stability and predictive validity of preschool math and language scores," *European Early Childhood Education Research Journal* 25 (5), 698-716 (2017).
- [7] B. Hopper, J. Grey, T. Maude, "Teaching Physical Education in the Primary School," Routledge Falmer, 2000.
- [8] R.C. Morris, L.C. Parker, D. Nelson, M.D. Pistilli, A. Hagen, C.L. Bristol, and G. Weaver, "Development of a Student Self-Reported Instrument to Assess Course Reform," *Educational Assessment* 19(4), 302-320 (2014).
- [9] R. Naul, and K. Ken Hardman, "Sport and Physical Education in Germany," Routledge, 2002.
- [10] Z. Parveen, "Educational Effectiveness Of The 5e Model For Scientific Achievement Of Students With Hearing Impairment," *Journal Of Baltic Science Education* 16(5), 723-732 (2017).
- [11] J. Perryman, S.J. Ball, A. Braun, and M. Maguire, "Translating policy: governmentality and the reflective teacher," *Journal of Education Policy* 32 (6), 745-756 (2017).
- [12] D.H. Schunk, "Learning Theories an Educational Perspective," Pearson Education Inc, 2012.
- [13] A. Seabra, J. Ricardo, R.J. Fernandes, E. Marques, M. Moura, E.U. Guisado, E. Hernando, and L. Gallardo, "Impact of Futsal and Swimming Participation on Bone Health in Young Athletes," *Journal of Human Kinetics* 60, 85-91 (2017).
- [14] D. Sugden, and M. Wade, "Typical and Atypical Motor Development," Mac Keith Press, 2013.
- [15] B. Tolgfors, "Different versions of assessment for learning in the subject of physical education," *Physical Education and Sport Pedagogy* 23 (3), 311-327 (2018).
- [16] S. Winter, Curriculum Policy Reform in an Era of Technical Accountability: 'Fixing' Curriculum, Teachers and Students in English Schools," *Journal of Curriculum Studies* 49 (1), 55–74 (2017).