A Literary Review on Curriculum Implementation Problems

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Abstract
The aim of this study is to examine studies on curriculum implementation problems in literature and to compile some measures that can be taken to reduce these problems. Considering the criteria of this study as a result of the preliminary examination, 39 articles were excluded and 72 articles were included in this review study. Descriptive and content analysis methods were used to analyze included studies. With content analysis, studies were examined and codes were determined about curriculum implementation problems. The researcher and a co-observer studied together to confirm codes. As a result, curriculum implementation problems were presented in four headings, curriculum implementation problems related to teacher, related to students, related to curriculum and related to schools. With this study, curriculum implementation problems can be determined and necessary measures can be taken by teachers, educators and administrators.

Keywords: Curriculum, Implementation, Problems, Education

Introduction
Through rapid changes and progress of civilizations, knowledge and technology changes inevitably occur in an educational environment. Among these changes, new curriculum implementations are visible (Retnawati, et al., 2016). However, educational innovations rarely meet expected goals (Carless, 1997). These innovations are often restructured within the scope of difficulties encountered, or remaining parts are neglected with half applications. Today, having difficulty and complexity of implementing innovation in any field is a generally accepted reality (Ball & Bowe, 1992). For this reason, this study aims to determine curriculum implementation problems and to suggest some solutions for educational authorities.

Curriculum
The curriculum is defined as a series of purposefully planned learning activities (Mkandwire, 2010), a mean to create learning opportunities for students in a qualified structure (Mojkowski, 2000), involving all activities, experiences, materials and methods, knowledge, values, attitudes and skills that are consciously designed to achieve well-defined goals with a specific group of students (Cobbold, 1999). Moreover, it is the most fundamental element of whole education since it acts as a guide to reach targeted education which connotes curriculum is an element that determines the quality and impact of the education system (Apsari, 2018). As a substantial element, it includes knowledge and skills students must know in that specific field. To fully achieve these, it is necessary to prepare a curriculum that fits students perfectly (Muskin, 2015).
As a loadstar, curriculum suggests some steps to teacher such as teaching, preparing a lesson plan, and assessing (Nevenglosky, 2018). Therefore, any curriculum change predicts a change in all these parameters (Retnawati, et al., 2016). For example, with the constructivist approach, curriculum and its components changed the assessment. Instead of a product-oriented assessment, a process and performance-oriented assessment has been adopted, portfolios or projects have started to be used (Akkoç, et al., 2008).

The curriculum does not only stand for choosing content and applying some methods but also includes planned and unplanned activities involving student participation. A planned, tried and revised curriculum ensures the interaction of students and teachers in an educational environment, with physical facilities and resources of the school, targeted goals can be achieved (Olamo, et al., 2019) and contribution to the development of society can be provided (Badugela, 2012).

The curriculum is a whole as a model, a document, including the organization of the educational environment, decisions taken by teachers regarding the learning process, or the opinions of society, families and external authorities (McLachlan, et al., 2018). How knowledge is perceived in a society, which types of knowledge are most preferred, which roles a teacher should have and where the student should stand among these elements (Hickey, 2005) are all reflected in the curriculum. Moreover, curriculum defines roles of student, teacher, school administration and family with philosophy on which it is based (Akkoç, et al., 2008). How to write a textbook, what technology and teaching materials will be used, and what kind of education will be given to teachers depend on the curriculum and its basic philosophy (Mkandawire, 2010). Curriculum philosophy may be influenced by socio-economic, cultural and political factors. The interest, value and attitude towards the curriculum of each viewpoint may be different and may want to reflect these differences in curriculum. For this reason, it has basic features in different structures (Mkandawire, 2010) as a dynamic tool to create a real-time process (Mojkowski, 2000; McLachlan, et al., 2018).

Curriculum Implementation

Curriculum implementation is a fulfillment of officially prepared course content and process (Chaudhary, 2015; Mabale, 2013), an application of ideas and innovations to teach knowledge, skills, concepts, and interpretations (Mulyasa, 2009; Chhem & Eng, 2007; Mabale, 2013), daily classroom activities involving students and teacher (Ogar & Opoh, 2015), a way to reduce differences (Cobbold, 1999), an activity conducted to implement an idea or reform (Cheung & Wong, 2012), a black box (O’Sullivan, 2002), a structure that aims to transform curriculum into classroom activities and to create an attitude towards students accepting and participating in these activities (Okello and Kagoire 2016; Mkandawire, 2010), instruction of subjects as determined by rules (Badugela, 2012), a systematic process that foresees successful completion of each stage, from the lowest level to the highest.

The main purpose of curriculum implementation is also stated in literature as; to provide students with knowledge and skills (Chaudhary, 2015), to ensure students benefit from existing opportunities at the highest level (Mkandawire, 2010), to first create a change and then provide development for education (Cobbold 1999), to ensure that student gains knowledge, experience and also make students use all of them effectively (the University of Zimbabwe, 1995 as cited in Badugela, 2012), to restructure students’ knowledge by adding a new one to already existing one (Muskin, 2015). Therefore, required curriculum implementation can be achieved when student gains targeted knowledge, skills, experience and attitude (Chaudhary, 2015).

Curriculum implementation also aims to use the same curriculum at the same grade levels in all educational institutions and foresees student’s behavioral change under the control of the implementer (Muskin, 2015). Implementing curriculum in the same way at same grade levels ensures consistency in learning goals and supports reaching a common level in students’ development and readiness levels (Tweedie & Kim, 2015).

Curriculum implementation is a very important, difficult and inevitable phase for curriculum. The reason for this is that without implementing a curriculum, strengths and weaknesses, success,
deficiencies and insufficient parts of the curriculum cannot be determined (Dzimiri & Marimo, 2015). Identifying the weaknesses and deficiencies of a curriculum provides educators with an idea to review and reorganize the curriculum (Ekawati, 2017). Each curriculum generally offers teaching-related suggestions, texts, lesson plans and assessment options. The teacher is expected to apply the curriculum accordingly (Marques & Xavier, 2020) to transform the curriculum into classroom activities (Okello & Kagoire, 1996). These curriculum activities are carried out to follow student’s progress and to evaluate students (Ogar & Opoh, 2015). Though, during all these processes, educators, teachers, implementers, school management can have problems (O’Sullivan, 2002; Okello & Kagoire (1996). These problems can be related to implementation. The curriculum should be implemented properly. Otherwise, teachers feel demoralized; families experience disappointment, students lose interest in that course (Rosen, & National Research Council, 1989). For teachers, the result is having an attitude of going back to traditional, old curriculum and teaching methods and techniques (Hurd, 1989).

Role of Teacher in Curriculum Implementation

Teachers have a crucial role in transferring curriculum to a student (Lochner, et al., 2015). It is important for teachers to stick to the curriculum. The extent to which teachers adhere to guidelines, the integrity of curriculum principles, and how appropriate opportunities are provided ensure the connection between curriculum and implementation (Penuel, et al., 2014).

Recently, the roles of teachers in the curriculum implementation process have changed. The teacher no longer transmits information but manages the learning process. What is expected is to provide activity-based teaching where students focus on cause and effect, work collaboratively, communicate and share (Bingolbali, et al., 2008). To ensure all of these, teachers can sometimes make some changes in curriculum implementations (Penuel, et al., 2014).

During implementation teacher identifies possible problems, observes the political and social structure of school, evaluates adequacy and applicability of curriculum, uses pedagogical knowledge and creativity to develop himself/herself professionally (Vasconcelos, et al., 2015), determines how he can support learning and student development (McLachlan, et al., 2018). So, a teacher is expected to do many things (Hickey, 2005) such as implementing curriculum, supporting student’s development at a desired level, and solving all problems. They will have a hard time if they are left alone. As a result of all these responsibilities teacher must leave her comfort zone and enter a balanced process, however depending on workload, teachers may not solve problems (Chapman, 2019; Hickey, 2005).

Curriculum implementation refers to how teachers practice curriculum, how they teach and evaluate students (Nevenglosky, 2018; Marques & Xavier, 2020), how they interpret curriculum (McLachlan, et al., 2018). The effect of a curriculum implementation on education depends on how well that curriculum is implemented. In this context, different perspectives of teachers are effective in implementation (Ogar & Opoh, 2015). For example, while some teachers implement all stages of the curriculum in detail and carefully, some teachers may stay away from differences by adhering to traditional methods (Chapman, 2019). Teaching curriculum traditionally means using routine teaching methods, offering a mechanical education and neglecting the basic learning needs of the student (Cheng, 2001).

For teachers’ curriculum implementation, similarities and differences are also important. School structure, their facilities and their adaptability to curriculum affect implementation. For example, considering the smaller and collaborative nature of primary schools, a curriculum can be implemented more harmoniously. However, it may be difficult in larger schools such as secondary schools and high schools, where a number of courses and differences are more than others (Chapman, 2019).

Moreover, for effective curriculum implementation, a teacher should understand and interpret the curriculum well (Badugela, 2012). Also he/she should know how to use curriculum materials (Pak, et al., 2020). The better teacher understands the curriculum, the more effectively she/he plans, designs lessons and implements curriculum
When the curriculum is not fully understood, the teacher decides whether to fully implement the curriculum or not (Cheung & Wong, 2012).

**Written and Implemented Curriculum**

A curriculum can be prepared in an academic structure; however, how much of this curriculum is implemented in the classroom determines its effectiveness (Pak, et al., 2020). Successful implementation means that targeted and applied curricula are the same, there is a difference between what is written in curriculum documents and what is implemented in the classroom (Bennet, 2007).

When a curriculum is prepared, a curriculum expert writes a text for a specific purpose but cannot control how the reader interprets this text. Therefore, texts in curriculum documents can be interpreted in different ways by teachers or implementers (Ball & Bowe, 1992). Depending on problems encountered during curriculum implementation, a curriculum cannot be implemented as intended and in this case, the curriculum is either simplified or reduced (Chapman, 2019). Infect, when a curriculum is implemented, schools often do not fully implement it and they mostly just adopt a curriculum that suits them (Hickey, 2005). Unfortunately, as a result, curriculum goals are not fully achieved and sometimes, only certain parts of the curriculum can be transferred to students (Muskin, 2015; Kam, 2002; Magoma, 2016; Wang, 2010).

Moreover, if practices related to a curriculum implementation conflict with practices of official authority and local education system, these practices are avoided (Morris, 1992), changes and applications made are often shaped by demands of dominant structures. This situation causes a difference between plan and implementation (Cheng, 2001). Consequently, many countries face problems implementing a written curriculum (Chhem & Eng, 2007).

During curriculum implementation, unforeseen, unforeseeable and unavoidable difficulties may be encountered. For example, first of all, schools are different. This reality should not be forgotten. Or changes in staff structure, illness or absenteeism of teachers, part-time working conditions, lack of qualified teachers, unexpected events, corporate culture, history and the school’s physical environment (Ball & Bowe, 1992) may hinder to conduct of curriculum implementation as intended. It is inevitable to experience problems during curriculum implementation and this situation transforms implementation into an unexpected and more complex structure for those who implement it (Wang, 2010). To make implementation easier, it is logical to take measures to minimize problems. Curriculum implementation may predict a change in the teaching of a course (Department of Education and Science, 2005) yet; there should not be big differences between new curriculum implementation and already existing implementation. The more innovation is by existing practice, the more easily teachers adopt it. Implementation, which is very different, overloading and changing schools and teachers, can create problems in terms of usability and adaptation (Carless, 1997).

The attitude of the school is also effective in curriculum implementation. If a school structure has set a target for curriculum, then curriculum can be implemented more effectively. Difficulties that may be encountered can be resolved or minimized. If the school implements a curriculum with the thought that curriculum should be implemented in any case, then problems will be more difficult to solve (Chapman, 2019).

**Determining Problems**

Curriculum implementation needs to be evaluated, so both good practices and difficulties can be identified. Identifying problems will ensure educators revise curriculum, to formulate a strategy and also solve problems in next stages (Department of Education and Science, 2005; Cheung & Wong, 2012; Badugela, 2012). Moreover, determining what kind of problems teachers encounter during curriculum implementation and taking necessary precautions can affect curriculum success positively (Erden, 2010; Chapman, 2019), carry out the implementation process more effectively (Nevenglosky, et al., 2019), provide information about implementation to school leaders, policymakers and teacher educators (Ogar & Opoh, 2015), provide a collaborative learning environment among teachers (Nevenglosky, 2018),
enable teachers to expand learning (Chapman, 2019), contribute to the elimination of gap between written and implemented curriculum. To have an effective curriculum implementation, problems experienced by teachers should be determined and solved (Bingolbali, et al., 2008; Zedda, et al., 2017). Unless curriculum implementation problems are solved, failure in education is inevitable (Cobbold, 2017). Although there are many studies written on curriculum implementation, few studies were available on curriculum implementation problems. There are two elements that formed rationale for this study. First, there is a lack of research in the area of curriculum implementation problems, as mentioned above. Second, there is a lack of research suggesting solutions for solving these problems. Literature search uncovered no studies in which readers can have a general idea about problems and solutions about curriculum implementation. For this reason research questions of this study are;

• What are curriculum implementation problems related to teachers?
• What are curriculum implementation problems related to students?
• What are curriculum implementation problems related to the curriculum?
• What are curriculum implementation problems related to school?

Method
This study is qualitative and aims to examine studies on curriculum implementation problems in literature. As a result of the search using “curriculum,” “implementation” and “problem” keywords, many studies were found in the literature. Inclusion and exclusion criteria for selecting studies were determined. In choosing studies, the following criteria were noted. The studies should:

• Be related to curriculum implementation problems.
• Be published in English
• Be empirical
• Have full texts available
• Have an original structure
• Be published only in educational journals

Studies were not included if they:

• Have a theoretical structure
• Aim to evaluate political purposes
• Our research reports or final reports of studies
• Are published as a book or book chapter
• Our project works
• Are news article
• Are proceedings (The reason is not knowing whether it has gone through referee process)

Databases and included number of studies are shown in Table 1.

Table 1: Databases and Included Number of Studies

| Name of the database                  | Number of studies identified |
|---------------------------------------|------------------------------|
| Research gate                         | 15 studies                   |
| ERIC                                  | 9 studies                    |
| Semantic Scholar                     | 7 studies                    |
| T and F online                        | 6 studies                    |
| Springer                              | 4 studies                    |
| Sage                                  | 3 studies                    |
| Eprints                               | 3 studies                    |
| JSTOR                                 | 2 studies                    |
| Wiley Online                          | 1 study                      |
| Google Scholar                        | 1 study                      |
| Scientific Research Publishing        | 1 study                      |
| ISSR Journals                         | 1 study                      |
| UNC press                             | 1 study                      |
| Sciepub                               | 1 study                      |
| Science Direct                        | 1 study                      |
| Routledge                             | 1 study                      |
| Elsevier                              | 1 study                      |
| Murdoch Univ. Research Repository     | 1 study                      |
| Acikerisimarsiv                       | 1 study                      |
| Emerald Research                      | 1 study                      |
| Atlantis Press                        | 1 study                      |
| Amity Edu                             | 1 study                      |
| Longdom                               | 1 study                      |
| Pubmed                                | 1 study                      |
| Uzspace                               | 1 study                      |
| Dergipark                             | 1 study                      |
| Research space                        | 1 study                      |
| TIOSS                                 | 1 study                      |
Considering the aim of this study as a result of a preliminary examination, 36 studies were excluded and 72 studies were included in this study. 12 proceedings, 5 theoretical studies, 1 project work, 4 book/book chapters, 2 reports, 2 studies in which full texts cannot be reached, 1 study about health and 9 studies not directly related to the aim of this study were excluded. Figure 1 shows the study selection process.

![Figure 1: Flow Chart of the Study Selection Process](image)

Studies decided to be included in this research were analyzed with descriptive content analysis to express their percentages and with content analysis to identify problems in detail. After studies were coded separately by two researchers, different codes were discussed and common sense was reached. Inter-rater reliability was calculated using Reliability = consensus / consensus + disagreement (Miles & Huberman 1994). This consistency coefficient, which was not 100% at the beginning, reached a complete harmony due to studies of researchers on different encodings. All studies have been examined by considering these codes again.

The study’s validity was carried out at five different levels, which Maxwell (1992) suggested: descriptive validity, theoretical validity, interpretive validity, generalizability and evaluative validity. Descriptive validity includes a detailed presentation of the studied phenomenon. Problems started in studies examined in line with this study were specified by creating tables to cover all problems. Another dimension, theoretical or internal validity, includes a well-theoretical definition of a situation under study. In this context, problems expressed in this study are examined in a comprehensive way in different fields such as pedagogy, sociology, philosophy, and educational sciences, without being bound by any limitations. Care was taken to examine problems within the scope of these areas and to reflect reality. The interpretive validity, which is taken as the third dimension, is related to the fact that research findings can be conveyed objectively by researchers. The data sources used in this study are published studies. In this context, it can be said that the expected objectivity can be made with direct quotations from these documents, and the comments and findings are also far from subjectivity. The fourth dimension is generalizable validity, that is, external validity. Although the main concern of qualitative research is not the generalization of results, methods and tools used in studies can be used in other research environments and a detailed explanation of the process to do this is a way to obtain generalizable validity. In this context, a detailed description of coding and the method used in this research allows this process to be used for other researches. Finally, interpretive validity is about the clarity of the process being studied, the consistency of results and the approval of other researchers. Accordingly, the fact that the coding used in this research is explained clearly and concisely and also documents used are accessible by everyone ensures the validity of the researcher. This research was given codes with the first letters of curriculum implementation problems as CIP1, CIP2, CIP3.

**Results**

The results of this study are presented below in line with research questions.

The first research question is “What are curriculum implementation problems related to teachers?”
| Problem                                                                 | Code                                                                 | %   |
|------------------------------------------------------------------------|----------------------------------------------------------------------|-----|
| Lack of professional development                                       | CIP 10, CIP 15, CIP 18, CIP 24, CIP 35, CIP 42, CIP 43, CIP 45,      | 26  |
|                                                                        | CIP 48, CIP 60, CIP 65, CIP 78, CIP 83, CIP 87, CIP 90, CIP 93,        |     |
|                                                                        | CIP 96, CIP 105, CIP 107                                             |     |
| Teachers’ insufficient teaching skills                                 | CIP 3, CIP 18, CIP 23, CIP 29, CIP 43, CIP 52, CIP 59, CIP 60,      | 20  |
|                                                                        | CIP 73, CIP 78, CIP 83, CIP 87, CIP 96, CIP 99                        |     |
| Teacher’s inability to translate curriculum intentions into reality    | CIP 2, CIP 10, CIP 38, CIP 41, CIP 78, CIP 79, CIP 83, CIP 87,      | 15  |
|                                                                        | CIP 101, CIP 22, CIP 28                                              |     |
| Inability of teachers to prepare a lesson plan                        | CIP 1, CIP 4, CIP 8, CIP 12, CIP 13, CIP 18, CIP 47, CIP 96,        | 14  |
|                                                                        | CIP 102, CIP 108                                                     |     |
| Teachers’ inability of using alternative assessment methods            | CIP 4, CIP 43, CIP 47, CIP 64, CIP 79, CIP 83, CIP 88, CIP 97,      | 14  |
|                                                                        | CIP 106, CIP 6                                                       |     |
| Teacher’s lack of content knowledge,                                  | CIP 3, CIP 18, CIP 24, CIP 29, CIP 83, CIP 89, CIP 94, CIP 97,      | 13  |
|                                                                        | CIP 105                                                             |     |
| Lack of teacher motivation/self-confidence                              | CIP 23, CIP 48, CIP 59, CIP 69, CIP 73, CIP 74, CIP 82, CIP 83,    | 13  |
|                                                                        | CIP 83, CIP 87                                                      |     |
| Teacher’s not understanding curriculum                                 | CIP 19, CIP 36, CIP 46, CIP 59, CIP 79, CIP 94, CIP 96, CIP101      | 11  |
| Teachers’ adherence to traditional teaching methods                    | CIP 19, CIP 33, CIP 38, CIP 46, CIP 78, CIP 85, CIP 89, CIP 22      | 11  |
| Teachers’ inability to interpret curriculum                             | CIP 33, CIP 87, CIP 96, CIP 22, CIP 12, CIP 79, CIP 89, CIP 106    | 11  |
| Teachers’ inability of using authentic assessment approach.            | CIP 17, CIP 23, CIP 27, CIP 43, CIP 47, CIP 64, CIP 79              | 10  |
| Teachers’ increased workload                                            | CIP 18, CIP 23, CIP 35, CIP 83, CIP 96                              | 7   |
| Differences between teachers’ beliefs and underlying ideology of proposed curriculum | CIP 2, CIP 3, CIP 29, CIP 41, CIP 22                                  | 7   |
| Teachers’ lack of teaching methods                                     | CIP 83, CIP 96, CIP 101, CIP 102, CIP 105                           | 7   |
| Teachers beliefs and attitudes                                          | CIP 18, CIP 28, CIP 29, CIP 34, CIP 38                              | 7   |
| Teachers’ problems related to teaching and learning process            | CIP 4, CIP 8, CIP 28, CIP 69                                         | 6   |
| Lack of appreciation by experts and                                    | CIP 12, CIP 84, CIP 85                                              | 4   |
| Teachers’ refusal to attend in-service training seminars               | CIP 83, CIP 102                                                     | 3   |
| Lack of teachers’ experience                                           | CIP 74, CIP 105                                                     | 3   |
| Uncertainty of teachers’ about whether to continue working or not      | CIP 10                                                              | 1   |
| Teachers’ lack of ability for choosing materials                       | CIP 108                                                             | 1   |
| Different educational backgrounds of teachers                          | CIP 5                                                               | 1   |

As a result of literary review, frequently stated curriculum implementation problems related to teachers are lack of professional development, teaching skills, lack of abilities to translate curriculum intentions into reality, to prepare a lesson plan, to use alternative assessment methods, lack of content knowledge, teacher’s not understanding curriculum, lack of teacher motivation/self-confidence, teachers’
inability of using authentic assessment approach, teachers’ adherence to traditional teaching methods, teachers’ inability to interpret curriculum.

The second research problem is “What are the curriculum implementation problems related to students?”

Table 3: Curriculum Implementation Problems Related to Students

| Problem                                      | Code                          | %   |
|----------------------------------------------|-------------------------------|-----|
| Students’ diverse characteristics,           | CIP 2, CIP 28, CIP 30, CIP 34, CIP 36 | 7   |
| Students’ different prior knowledge          | CIP 6, CIP 24, CIP 35, CIP 46, CIP 59 | 7   |
| Insufficient students motivation             | CIP 96, CIP 106, CIP 15      | 4   |
| Lack of opportunities for improving students’ high order thinking skill | CIP 60, CIP 93, CIP 101 | 4   |
| Lack of student encouragement                | CIP 13, CIP 98               | 3   |
| Students negative attitudes                  | CIP 29, CIP 33               | 3   |
| Students’ living away from school            | CIP 99                       | 1   |
| Students’ poor and erratic school attendance | CIP 29                       | 1   |

As a result of literary review, frequently stated curriculum implementation problems related to students are students’ diverse characteristics and different prior knowledge, their insufficient motivation, encouragement and negative attitudes, lack of opportunities for improving students’ high order thinking skill.

The third research question is “What are the curriculum implementation problems related to the curriculum?”

Table 4: Curriculum Implementation Problems Related to Curriculum

| Problem                                                        | Code                          | %   |
|                                                               |                               |-----|
| Time restrictions (Insufficient time for the implementation specified in the curriculum) | CIP 10, CIP 13, CIP 15, CIP 19, CIP 27, CIP 28, CIP 29, CIP 31, CIP 34, CIP 42, CIP 48, CIP 64, CIP 66, CIP 69, CIP 73, CIP 74, CIP 76, CIP 84, CIP 88, CIP 93, CIP 96, CIP 102 | 31  |
| Difficulties of curriculum content (length, demarcation, not being clear, technical jargon etc.) | CIP 10, CIP 15, CIP 28, CIP 41, CIP 44, CIP 47, CIP 60, CIP 69, CIP 77, CIP 104, CIP 107 | 15  |
| Nature of official curriculum documents                    | CIP 93, CIP 87, CIP 96, CIP 4, CIP 12, CIP 29, CIP 60, CIP 96 | 11  |
| Incompatibility of curriculum and textbooks                | CIP 13, CIP 33, CIP 48, CIP 60, CIP 76 | 7   |
| Curriculum not being related to students’ culture and society | CIP 65, CIP 90, CIP 107       | 4   |
| Lack of realistic expectations of curriculum developers     | CIP 69                        | 1   |
| Mismatch of curriculum and material and assessment         | CIP 48                        | 1   |
| Lack of access to curriculum details/activities from document | CIP 45                       | 1   |

As a result of literary review, frequently stated curriculum implementation problems related to the curriculum are time restrictions, difficulties of curriculum content (length, demarcation, not being clear, technical jargon, etc.), nature of official curriculum documents, incompatibility of curriculum and textbooks, curriculum not being related to students’ culture and society.

The last research question is “What are the curriculum implementation problems related to school?”
### Table 5: Curriculum Implementation Problems Related to School

| Problem                                                                 | Code                                                                 | %  |
|------------------------------------------------------------------------|----------------------------------------------------------------------|----|
| Schools’ lack of resources                                            | CIP 2, CIP 12, CIP 15, CIP 18, CIP 19, CIP 24, CIP 29, CIP 30, CIP 33, CIP 42, CIP 47, CIP 48, CIP 59, CIP 76, CIP 79, CIP 83, CIP 84, CIP 96, CIP 97, CIP 102, CIP 105, CIP 107 | 31 |
| Schools’ lack of materials                                             | CIP 2, CIP 5, CIP 8, CIP 13, CIP 15, CIP 19, CIP 31, CIP 33, CIP 44, CIP 48, CIP 52, CIP 76, CIP 79, CIP 84, CIP 88, CIP 90, CIP 93, CIP 101, CIP 107, CIP 99 | 28 |
| Classroom environment (physical)                                       | CIP 2, CIP 4, CIP 27, CIP 28, CIP 29, CIP 34, CIP 48, CIP 52, CIP 59, CIP 108, CIP 113 | 15 |
| Schools’ lack of facilities                                            | CIP 2, CIP 4, CIP 8, CIP 15, CIP 33, CIP 64, CIP 78, CIP 84, CIP 97, CIP 106, CIP 99 | 15 |
| Schools’ not being able to provide parent involvement                  | CIP 4, CIP 44, CIP 60, CIP 83, CIP 88, CIP 97, CIP 101, CIP 106, CIP 108 | 13 |
| Inadequate financial support                                           | CIP 13, CIP 31, CIP 33, CIP 42, CIP 44, CIP 73, CIP 96, CIP 106, CIP 99 | 13 |
| Crowded classrooms                                                     | CIP 27, CIP 28, CIP 31, CIP 33, CIP 59, CIP 88, CIP 96, CIP 101, CIP 108 | 13 |
| Lack of support (School Administration)                                | CIP 13, CIP 18, CIP 30, CIP 34, CIP 44, CIP 83, CIP 85, CIP 98, CIP 101 | 13 |
| Providing limited opportunities for teachers’ collaboration            | CIP 18, CIP 24, CIP 30, CIP 45, CIP 65, CIP 85, CIP 90, CIP 93, CIP 101 | 13 |
| Lack of instructional supervision of administrators’                  | CIP 2, CIP 82, CIP 44, CIP 59, CIP 69, CIP 96, CIP 104, CIP 106 | 11 |
| External pressures on curriculum implementation (church, politics, state etc.) | CIP 12, CIP 23, CIP 29, CIP 106, CIP 6 | 7 |
| The pressure of central exams                                          | CIP 2, CIP 5, CIP 13, CIP 88 | 6 |
| Lack of institutional commitment                                       | CIP 21, CIP 30, CIP 82, CIP 83 | 6 |
| Technical problems                                                    | CIP 19, CIP 66, CIP 27, CIP 48 | 6 |
| Schools’ not including teachers in curriculum development             | CIP 16, CIP 73, CIP 96 | 4 |
| Lack of activities                                                     | CIP 4, CIP 17, CIP 69 | 4 |
| Unfriendly social conditions of school for teachers                    | CIP 18, CIP 52, CIP 99 | 4 |
| Lack of stakeholders’ support                                          | CIP 82, CIP 93, CIP 63 | 4 |
| Inadequate infrastructure in schools                                   | CIP 52, CIP 106, CIP 80 | 4 |
| Hurriedly implementing curriculum                                      | CIP 52, CIP 93 | 3 |
| Lack of adequate and human resources                                   | CIP 59, CIP 99 | 3 |
| School Readiness                                                      | CIP 93 | 1 |
| High teacher turn over                                                 | CIP 33 | 1 |
| Quality of resources                                                  | CIP 30 | 1 |
| Administration’s intervention to curriculum implementation frequently  | CIP 98 | 1 |
| Inappropriate learning materials                                       | CIP 13 | 1 |
| Organizing many field trips/social activities                          | CIP 4 | 1 |
| Influence of hidden curriculum                                         | CIP 69 | 1 |
As a result of literary review, frequently stated curriculum implementation problems related to school are lack of resources, materials, facilities and financial support, physical classroom environment and crowd, schools’ not being able to provide parent involvement, supervision and support and also external pressures.

Curriculum implementation problems are presented below. Results indicate that it is necessary to solve these problems for successful implementation. Curriculum implementation problems were examined in four categories as teachers, students, curriculum and school. The detailed explanation below was presented depending on the most emphasized problems. However, problems related to students were considered as a result of deficiencies of curriculum, teacher and school. Therefore, explanations were given only for these three categories. With the following explanations, administrators, teachers and curriculum developers can solve problems related to students.

Teacher’s Effect

The teacher interprets the curriculum and organizes the educational environment accordingly. What should be taught and which method is more appropriate depends on the teacher’s own interpretation of curriculum (Chapman, 2019), chooses appropriate component for curriculum, such as document, content, activity, and applies them in class, reconstructs curriculum by integrating it with his/her personality traits, interactions and environment. Therefore, curriculum implementation depends on the teacher’s own structuring (Chaudhary, 2015). Firstly, the teacher’s both personal characteristics and his/her environment are effective in curriculum implementation. A teacher has a belief in how a student learns based on his/her own past experiences and makes decisions in line with this belief (Erden, 2010). Secondly, the fact that teachers have different academic backgrounds causes many problems such as deficiencies in curriculum planning and implementation, making different evaluations, not clearly understanding curriculum goals and not ensuring professional development (Oktafiani & Hernawan, 2018). Academically teachers should have sufficient content knowledge; they should know the subject well for curriculum implementation (Bennie & Newstead, 1999; Lewthwaite, 2006). Thirdly, since teachers have different pedagogical competencies, they experience differences and difficulties in classroom applications in implementation. To overcome all these problems, teachers try to solve their problems by negotiating and cooperating among themselves (Apsari, 2018). Schools and educational institutions should reduce these differences, increase teachers’ knowledge, & provide them with opportunities to improve themselves & their professional knowledge & skills.

Infect, any problem in an educational environment prevents successful curriculum implementation. Personally, if teacher is unwilling or depressed, he/she cannot implement the curriculum effectively (Erden, 2010; Lewthwaite, 2006). For instance, while a teacher is implementing a curriculum, feeling worried about whether he/she will continue to work at that school or not, having a lack of assurance about the job and especially future job anxiety of teachers who are in leadership positions negatively affect curriculum implementation (Lumadi, 2014).

Teachers sometimes do not implement curriculum exactly as stated for some reasons. When they are asked why they do not implement the curriculum as specified in the document, they usually state that they attach more importance to working towards improving student’s learning rather than completing that material (Nevenglosky, 2018). Sometimes teachers state they don’t implement curriculum because the new curriculum wants them to do the activities they have already done (Ball & Bowe, 1992). Another reason for this is that teachers act by thinking they are doing the best for students (Nevenglosky, 2018). In some theoretical explanations that need to be repeated, some teachers state that it is difficult to go back because they have to progress at a certain pace. They express that this situation can slow them down (Malinga, 2005).

Another reason for not implementing the curriculum properly is the time limitation. Most of the time, curriculum gives the teacher an impossible time to finish content which causes the teacher to work anxiously with an intense workload. Sometimes teachers think that such planning is done with an overly optimistic perspective by curriculum experts.
Meanwhile, restricted time causes limitation and anxiety for teachers. For example, it is impossible to teach many concepts and expressions in a very short time in mathematics class. Abstract words, algebra, analysis, statistical geometry can be examples of these concepts (Lumadi, 2014). Time limitation also hinders extracurricular activities. Teachers sometimes try to support the curriculum with activities and slides, but concerns about whether subjects will be completed in a given time lead to pressure on teachers. A belief that a good teacher is a teacher who finishes curriculum on time prevents the development of students’ skills such as critical thinking, logical inference, meaningful learning and problem solving (Vasconcelos, et al., 2015).

Finally, to implement a curriculum successfully, a teacher’s educational philosophy and educational philosophy of written curriculum must be in accordance. When a teacher is committed to traditional teaching and practices in a new curriculum are not compatible with the teacher’s philosophy, the teacher avoids implementing that curriculum (Erden, 2010). On the other hand, a teacher can also adopt a philosophy of curriculum since the teacher’s performance in the classroom ensures effective implementation (Roehringeri, et al., 2007).

Any time teachers adhere to traditional methods, they conduct teaching even in a new curriculum according to their expressions (Pak, et al., 2020; Coburn et al., 2016). If a teacher’s own belief, the mentality is not compatible with curriculum, then curriculum cannot be implemented successfully (Cronin-Jones, 2006; Kern, et al., 2007).

**Lesson Plan**

A lesson plan is a crucial element in a curriculum (Craft & Bland, 2004; Ediger, 2004). Many teachers find or copy a lesson plan by using different resources; however, a prepared or copied lesson plan should be suitable for students and also for school conditions (Suaynto, 2017). Teachers mostly find it difficult to prepare lesson plans. The reason can be not having a specific standard in content, process and evaluation. Even if the teacher is included in preparing a lesson plan, sometimes problems arise in practice since teachers can interpret and apply prepared lesson plan in different ways (Palobo, et al., 2018).

**School Readiness**

All schools are trying to implement a new curriculum, regardless of whether they are ready or not. Yet, school readiness is an important factor in curriculum implementation. Although some schools train teachers with their budgets and prepare textbooks in this direction, they work hard to introduce curriculum to families and teachers, a school cannot effectively implement a curriculum unless it is fully ready. Therefore, all efforts about curriculum implementation create an extreme burden for school (Suaynto, 2017).

**Structure of Curriculum Document**

Curriculum documents should be prepared as a framework and offer flexibility and some freedom to the teacher. Before a prepared curriculum is implemented, it should be examined in detail whether a teacher can apply this curriculum in the classroom or not. Concepts in the curriculum should not be ambiguous and difficult for students (Bennie & Newstead, 1999). Document language also should be simple. Theoretical words in a curriculum make it difficult for teachers to understand and teach. For example, as long as the word “outcomes” is expressed in different ways such as “critical outcomes”, “specific outcomes,” or “cross-field outcomes”, understanding these concepts becomes difficult (Lumadi, 2014).

Moreover, the curriculum must be compatible with prior knowledge of students. Its content should be neither too difficult nor too easy. Since, in a very difficult content, the student feels bored and teacher needs an exhausting effort in a very simple content, time is wasted both for teachers and students (Bennie & Newstead, 1999).

Curriculum documents should be clear and understandable, contain sufficient examples and a common path for all teachers, content should be appropriate (Bennie & Newstead, 1999). Unnecessary details should not be included. Furthermore, too much paper activity in the curriculum creates a high workload and material density for a teacher. Similarly, repeating content and giving the same information will be boring for students. Content should be presented in a concrete and clear way, the arrangement should be logical, there must be
progress from simple to difficult, and deepen in later stages (Sangha & Bajaj).

On the condition that curriculum objectives are clear, obvious, high qualified, applicable and understandable then the curriculum document itself facilitates implementation. It is also easy to implement a curriculum that is suitable for characteristics of students, teaching materials and technologies, language structures of that society, teacher’s skills, family expectation, value judgment and cultural elements (Cobbold, 2017). The standards of the curriculum should be compatible with the standards of society and government (Pak, et al., 2020).

**Exam Oriented Curriculum**

The pressure of central exams is an obstacle to allocating time to full implementation of all curriculum activities (Bennie & Newstead, 1999). Large-scale central exams prevent successful curriculum implementation. While teachers strive to teach content-based subjects, they cannot allocate time for other curriculum components. Moreover, these exams do not focus on students’ individual differences and they also convert evaluations into a uniform structure (Muskin, 2015).

In traditional, exam-oriented curriculum teachers are directed to traditional methods more, interactive methods less (Dzimiri & Marimo, 2015). However, an exam-oriented curriculum leads to a superficial education in which only basic information is transferred. Teacher cannot go up with that curriculum. This causes only information to be taken as it is and high-level thinking skills cannot be reached. Furthermore, exam-oriented curriculum leads students being unsuccessful in tests (Muskin, 2015). Even when a teacher does not want to implement such a curriculum, school administration, families and society can force him/her to implement this kind of curriculum. Unfortunately, the necessity to stick to a central curriculum and exams hinders teachers’ creativity (Ball & Bowe, 1992)

**School Structure**

School culture is crucial in curriculum implementation. If a curriculum implementation requires a fundamental change in school’s culture, traditional practices, there can be a problem. For example, implementing alternative assessment and evaluation processes in a traditional school may be really difficult. When curriculum includes important changes for school culture, first giving preliminary information and making preparations for these changes will facilitate these kind of transition process (Bennie & Newstead, 1999). For a traditional society making curriculum changes too quickly and suddenly prevents ongoing curriculum implementation process. Since a curriculum change requires teacher to devote time to planning, previewing and dedication, educators should remember that this goal cannot be achieved overnight (Lumadi, 2014).

Moreover, schools need some financial supports for curriculum implementation since insufficiency of educational opportunities hinders effective curriculum implementation. Teachers must fully attain curriculum objectives defined in curriculum document, but school must also provide sufficient necessary facilities to promote curriculum implementation such as multimedia and computer labs, individual study rooms, and reading rooms (Apsari, 2018). Paying teachers’ salaries is not enough, there is also a need for financial resources, teaching materials, books, in-service training, for effective curriculum implementation (Alshammari, 2013).

School’s physical facilities can also be barrier for implementation. Physically small size of classroom and high density of furniture prevent curriculum implementation. In addition, if desks in a classroom are too heavy or if they are fixedly mounted on floor, a student cannot move these desks elsewhere when desired (Hickey, 2005). Lack of basic class items such as cupboard, desk, photocopier machine, desks, rows and chairs negatively affects both teachers and students. For instance, students cannot concentrate on lesson when they sit in crowded desks (Mokhele, 2012). The crowd of classes and scarcity of materials prevent the teacher’s effectiveness, and teachers cannot take care of the students individually (Alshammari, 2013; Hickey, 2005). All of these problems make teaching difficult (Hickey,2005).

**Conclusion**

The reasons for these problems may be different, but what is more important is that problems
encountered during curriculum implementation process negatively affect educational environment and implementation of a good curriculum. For this reason, this review is thought to be helpful for determining problems encountered during curriculum implementation process and taking measures to solve these problems in order to implement curriculum successfully.

References
Akkaoç, H., et al. “Curriculum Reform in Primary Mathematics Education: Teacher Difficulties and Dilemmas.” 32nd Conference of the International Group for the Psychology of Mathematics Education, 2008, pp. 169-176.
Alshammari, Ahmad. “Curriculum Implementation and Reform: Teachers’ Views about Kuwait’s New Science Curriculum.” US-China Education Review A, vol. 3, no. 3, 2013.
An Evaluation of Curriculum Implementation in Primary Schools - English, Mathematics and Visual Arts. Department of Education and Science, 2005.
Apsari, Yanuarti. “Teachers’ Problems and Solutions in Implementing Curriculum 2013.” Acuity: Journal of English Language Pedagogy, Literature and Culture, vol. 3, no. 1, 2018, pp. 11-23.
Badugela, Thivhavhudzi Muriel. Problems facing Educators in Implementing the National Curriculum Statement: The Case of Tshifhena Secondary School, Vhembe District, Limpopo Province, South Africa. University of South Africa, 2012.
Bajaj, Ruchi, and Manpreet Kaur Sangha. “Challenges in Implementation of New Curriculum with Reference to B.Ed of GGSIPU.” Amity International Journal of Teacher Education (AILTE), vol. 3, no.1, 2017.
Ball, Stephen J., and Richard Bowe. “Subject Departments and the ‘Implementation’ of National Curriculum Policy: An Overview of the Issues.” Journal of Curriculum Studies, vol. 24, no. 2, 1992, pp. 97-115.
Bennett, Douglas Shiel. Teacher Efficacy in the Implementation of New Curriculum Supported by Professional Development. 2007.
Bennie, Kate, and Karen Newstead. “Obstacles to Implementing a New Curriculum.” Proceedings of the National Subject Didactics Symposium, 1999, pp. 150-157.
Carless, David R. “Managing Systemic Curriculum Change: A Critical Analysis of Hong Kong’s Target-Oriented Curriculum Initiative.” International Review of Education, vol. 43, 1997, pp. 349-366.
Chapman, Sian. Understanding, Interpreting and Enacting Arts Curriculum: A Kaleidoscopic View of Teacher Experience in Western Australian Primary Schools. Murdoch University, 2019.
Chaudhary, Gautam Kumar. “Factors Affecting Curriculum Implementation for Students.” International Journal of Applied Research, vol. 1, no. 12, 2015, pp. 984-986.
Cheng, Doris Pui-Wah. “Difficulties of Hong Kong Teachers’ Understanding and Implementation of ‘Play’ in the Curriculum.” Teaching and Teacher Education, vol. 17, no. 7, 2001.
Cheung, Alan C., and Ping Man Wong. “Factors Affecting the Implementation of Curriculum Reform in Hong Kong.” International Journal of Educational Management, vol. 26, no. 1, 2012, pp. 39-54.
Cobbold, C. Implementation of the Social Studies Programme in Teacher Training Colleges in Ghana: An Evaluation. University of Cape Coast, 1999.
Cobbold, Cosmas. “Moving from Page to Playground: The Challenges and Constraints of Implementing Curriculum in Ghana.” Research on Humanities and Social Sciences, vol. 7, no. 4, 2017.
Dzimiri, Wonderful, and Simon T. Marimo. “Challenges faced in the Implementation of the Zimbabwe Localised Advanced Level Geography Syllabus: A Case of Gweru District High Schools.” Global Journal of Interdisciplinary Social Sciences, vol. 4, no. 2, 2015, pp. 52-56.
Ekawati, Yulia Nur. “English Teachers’ Problems in Applying the 2013 curriculum.” English Review: Journal of English Education, vol. 6, no. 1, 2017, pp. 41-48.
Erden, Emin. *Problems that Preschool Teachers face in the Curriculum Implementation.* Middle East Technical University, 2010.

Hickey, Catherine. *Issues and Challenges in Implementing the 1999 Curriculum for Visual Arts: Case Study in a Junior School.* National University of Ireland, 2005.

Lochner, Bianca, et al. “Secondary Teachers’ Concerns in Adopting Learning Management Systems: A US Perspective.” *TechTrends*, vol. 59, 2015, pp. 62-70.

Lumadi, Mutendwahothe Walter. “Exploring Factors Faced by Teachers in Curriculum Implementation.” *Mediterranean Journal of Social Sciences*, vol. 5, 2014, pp. 171-178.

Mabale, Moshe Bedwin. *Challenges Faced by Lectures in the Implementation of National Certificate Vocational Curriculum at Mopani South East FET College.* University of Limpopo, 2013.

Magaoma, Charles M. “The Promise of Integrated English Curriculum: Teachers’ and Head Teachers’ Reactions and Reflections.” *Universal Journal of Educational Research*, vol. 4, no. 5, 2016, pp. 1148-1157.

Malinga, Mxoleleni Alfred. *Current Difficulties Experienced by Grade 10 Mathematics Educators after the Implementation of the New Curriculum in Grade 9.* University of KwaZulu-Natal, 2005.

Mandukwini, Nompumelelo. *Challenges Towards Curriculum Implementation in High Schools in Mount Fletcher District, Eastern Cape.* University of South Africa, 2016.

Marques, Ronualdo, and Claudia Regina Xavier. “The Challenges and Difficulties of Teachers in the Insertion and Practice of Environmental Education in the School Curriculum.” *International Journal on Social and Education Sciences*, vol. 2, no. 1, 2020, pp. 49-56.

Maxwell, Joseph A. “Understanding and Validity in Qualitative Research.” *Harvard Educational Review*, vol. 62, 1992, pp. 279-301.

McLachlan, Claire, et al. *Early Childhood Curriculum: Planning, Assessment and Implementation.* Cambridge University Press, 2018.

Miles, Matthew B., and A. Michael Huberman. *Qualitative Data Analysis: An Expanded Sourcebook.* Sage, 1994.

Mkandawire, B. “Challenges of Curriculum Implementation in Learning Institutions.” *Sitwe*, 2010.

Mojkowski, Charles. “The Essential Role of Principals in Monitoring Curriculum Implementation.” *NASSP Bulletin*, vol. 84, 2000, pp. 76-83.

Mokhele, P.R. “Dealing with the Challenges of Curriculum Implementation: Lessons from Rural Secondary Schools.” *African Journal of Governance and Development*, vol. 1, 2012.

Morris, P. “Preparing Pupils as Citizens of the Special Administrative Region of Hong Kong: An Analysis of Curriculum Change and Control during the Transition Period.” *Education and Society in Hong Kong: toward One Country and Two Systems.* Hong Kong University Press, 1992.

Mulyasa, Enco. *Implementasi Kurikulum Tingkat Satuan Pendidikan.* Bumi Aksara, 2009.

Muskin, Joshua A. “Student Learning Assessment and the Curriculum: Issues and Implications.” *Educational Theory*, vol. 58, no. 1, 2015.

Nevenglosky, Erica. *Barriers to Effective Curriculum Implementation.* Walden University, 2018.

Nevenglosky, Erica A., et al. “Barriers to Effective Curriculum Implementation.” *Research in Higher Education Journal*, vol. 36, 2019.

Ogar, Odey Edward, and Fredrick Awhen Opoh. “Teachers Perceived Problems of Curriculum Implementation in Tertiary Institutions in Cross River State of Nigeria.” *Journal of Education and Practice*, vol. 6, no. 19, 2015, pp. 145-151.

Oktafiani, Miranti, and Asep Herry Hernawan. “Curriculum Implementation in Madrasah Diniyah Takmiliah Awaliyah at Bandung City.” *International Conference on Elementary Education*, 2018, pp. 85-90.

Olamo, Taye Gebremariam, et al. “Challenges Hindering the Effective Implementation of the Harmonized Modular Curriculum: The Case of Three Public Universities in Ethiopia.” *Creative Education*, vol. 10, 2019.
Pak, Katie, et al. “The Adaptive Challenges of Curriculum Implementation: Insights for Educational Leaders Driving Standards-based Reform.” *AERA Open*, vol. 6, no. 2, 2020.

Palobo, Markus, et al. “Analysis of Teachers’ Difficulties on Developing Curriculum 2013 Lesson Plans.” *1st International Conference on Social Sciences*, 2018, pp. 1319-1324.

Penuel, William R., et al. “Analyzing Teachers’ Curriculum Implementation from Integrity and Actor-Oriented Perspectives.” *Journal of Curriculum studies*, vol. 46, no. 6, 2014, pp. 751-777.

Retnawati, Heri, et al. “Vocational High School Teachers’ Difficulties in Implementing the Assessment in Curriculum 2013 in Yogyakarta Province of Indonesia.” *International Journal of Instruction*, vol. 9, no. 1, 2016, pp. 33-48.

Roehrig, Gillian H., et al. “Teacher and School Characteristics and Their Influence on Curriculum Implementation.” *Journal of Research in Science Teaching*, vol. 44, no. 7, 2007, pp. 883-907.

Sadow, Harvey S. “High-School Biology Training: A Prospective Employer’s View.” *School Biology Today and Tomorrow*. Edited by Walter G. Rosen, National Academies Press, 1989, pp. 37-44.

Suyanto, Slamet. “A Reflection on the Implementation of a New Curriculum in Indonesia: A Crucial Problem on School Readiness.” *AIP Conference Proceedings*, 2017.

Tweedie, M. Gregory, and Marcia Kim. “EAP Curricular Alignment and Social Acculturation: Student Perceptions.” *TESL Canada Journal*, vol. 33, 2015, pp. 41-57.

Vasconcelos, Clara, et al. “Uncovering Portuguese Teachers’ Difficulties in Implementing Sciences Curriculum.” *Cogent Education*, vol. 2, no. 1, 2015.

Wang, Hong. “Translating Policies into Practice: The Role of Middle-level Administrators in Language Curriculum Implementation.” *The Curriculum Journal*, vol. 21, no. 2, 2010.

Zedda, Massimo, et al. “Students’ Satisfaction with the Group Work Method and its Performance Evaluation: A Survey in an Italian University.” *International Journal of Instruction*, vol. 10, no. 3, 2017, pp. 1-14.

### Appendix

| Code  | Data Base            | Type of Research | Journal / Source                              | Year | Status  | Reason                                      |
|-------|----------------------|------------------|-----------------------------------------------|------|---------|---------------------------------------------|
| CIP 1 | Research Gate        | Proceeding       | AIP Conference Proceedings 1868, 100008       | 2017 | Excluded | Not knowing whether it has gone through the referee process |
| CIP 2 | Semantic Scholar     | Article          | International Journal of Applied Research    | 2015 | Included | ----------------------------- |
| CIP 3 | Semantic Scholar     | Proceeding       | Proceedings of the National Subject Didactics Symposium | 1999 | Excluded | Not knowing whether it has gone through the referee process |
| CIP 4 | Research Gate        | Dissertation     | -------------------------------              | 2010 | Included | ----------------------------- |
| CIP 5 | Research Gate        | Proceeding       | International Conference on Elementary Education | 2018 | Excluded | Not knowing whether it has gone through the referee process |
| CIP 6 | T and F online       | Article          | Journal of Social Sciences                | 2013 | Included | ----------------------------- |
| CIP | Source            | Type       | Title                                                                 | Year | Status      | Reason                                                      |
|-----|-------------------|------------|-----------------------------------------------------------------------|------|-------------|-------------------------------------------------------------|
| 7   | Research Gate     | Article    | Journal of Baltic Science Education                                    | 2013 | Excluded    |                                                             |
| 8   | Semantic Scholar | Article    | Journal of English Language Pedagogy, Literature and Culture           | 2013 | Included    |                                                             |
| 9   | Researchspace     | Report     | Education Counts                                                      | 2011 | Excluded    | Beyond the scope of this research                           |
| 10  | Research Gate     | Article    | Mediterranean Journal of Social Sciences                               | 2014 | Included    |                                                             |
| 11  | Jurnal.uns.ac.id  | Proceeding | 3rd National Seminar on Educational Innovation (SNIP 2018)             | 2018 | Excluded    | Beyond the scope of this research                           |
| 12  | Semantic Scholar | Article    | Research on Humanities and Social Sciences                             | 2017 | Included    |                                                             |
| 13  | Research Gate     | Article    | Current and Critical Issues in the Curriculum and Learning             | 2015 | Included    |                                                             |
| 14  | Research Gate     | Article    | Hindawi Publishing Corporation Mathematical Problems in Engineering   | 2013 | Excluded    | Not suitable for aim of this study                          |
| 15  | T and F online    | Article    | Cogent Education                                                      | 2015 | Included    |                                                             |
| 16  | Jstor             | Article    | Art Education in Canada                                               | 1984 | Included    |                                                             |
| 17  | Atlantis Press    | Article    | Advances in Social Science, Education and Humanities Research          | 2018 | Included    |                                                             |
| 18  | Semantic Scholar | Dissertation|                                                     | 2016 | Included    |                                                             |
| 19  | Sage Publications | Article    | Aera Open                                                             | 2020 | Included    |                                                             |
| 20  | Ajol              | Proceeding | International Research Conference (2011)                              | 2011 | Excluded    | Beyond the scope of this research                           |
| 21  | Research Gate     | Article    | BMC Medical Education                                                 | 2012 | Included    |                                                             |
| 22  | Springer link     | Article    | Asia Pacific Education Review                                         | 2008 | Included    |                                                             |
| 23  | T and F online    | Article    | Journal of Curriculum Studies                                         | 2014 | Included    |                                                             |
| 24  | Eric              | Dissertation|                                                     | 2018 | Included    |                                                             |
| 25  | Washington Post   | News Article|                                                     | 2014 | Excluded    |                                                             |
| CIP 26 | National Academies Press | Proceeding | High-School Biology Today and Tomorrow | 1989 | Excluded | Beyond the scope of this research |
|--------|--------------------------|------------|----------------------------------------|------|---------|-----------------------------------|
| CIP 27 | Eric | Article | Educational Sciences: Theory & Practice | 2013 | Included | -------------- |
| CIP 28 | Springer link | Article | International Review of Education | 1997 | Included | -------------- |
| CIP 29 | Research Gate | Dissertation | -------------- | 2005 | Included | -------------- |
| CIP 30 | Script (Scientific Research Publishing) | Article | Creative Education | 2019 | Included | -------------- |
| CIP 31 | Searchwork | Book Chapter | -------------- | 1996 | Excluded | Beyond the scope of this research |
| CIP 32 | Amity Edu | Article | Amity Edu | 2017 | Included | -------------- |
| CIP 33 | Longdom | Article | Global Journal of Interdisciplinary Social Sciences | 2015 | Included | -------------- |
| CIP 34 | Murdoch Un. Research Repository | Dissertation | -------------- | 2019 | Included | -------------- |
| CIP 35 | Elsevier | Article | Teacher and Teacher Education | 2000 | Included | -------------- |
| CIP 36 | Emerald Insight | Article | International Journal of Educational Management | 2012 | Included | |
| CIP 37 | Cambridge | Book | Early childhood Curriculum | 2010 | Excluded | Beyond the scope of this research |
| CIP 38 | Online Library | Article | Journal of Research in Science Teaching | 1991 | Included | |
| CIP 39 | Research Gate | Proceeding | First Int. Conference on Concept Mapping | 2004 | Excluded | Beyond the scope of this research |
| CIP 40 | Gov. Ie. | Book | Evaluation of Curriculum Implementation in Primary Schools | 2005 | Excluded | Beyond the scope of this research |
| CIP 41 | Jstor | Article | The Elementary School Journal | 2000 | Included | -------------- |
| CIP 42 | Unisa Institutional Repository | Dissertation | -------------- | 2012 | Included | -------------- |
| CIP 43 | Eric | Article | International Journal of Instruction | 2016 | Included | -------------- |
| CIP 44 | Eric | Article | Journal of Education and Practice | 2016 | Included | -------------- |
| CIP 45 | Eric | Article | Research in Higher Education Journal | 2019 | Included | ----------- |
| CIP 46 | Eric | Article | International Journal on Social and Education Sciences | 2020 | Included | ----------- |
| CIP 47 | Research Gate | Article | English Review: Journal of English Education | 2017 | Included | ----------- |
| CIP 48 | Eprints | Article | The Qualitative Report | 2018 | Included | ----------- |
| CIP 49 | Ukdiss | Dissertation | ----------- | 2019 | Excluded | Full text cannot be reached |
| CIP 50 | Dspace Marmara | Proceeding | 32nd Conference of the International Group for the Psychology of | 2008 | Excluded | Beyond the scope of this research |
| CIP 51 | Eric | Article | International Journal of Instruction | 2016 | Included | ----------- |
| CIP 52 | Sci educational | Article | American Journal of Educational Research | 2019 | Excluded | Full text cannot be reached |
| CIP 53 | Lib.dr.iastate | Dissertation | ----------- | 2008 | Excluded | Not related to this research |
| CIP 54 | Ascd | Article | Journal of Curriculum Supervision | 1985 | Excluded | Theoretical Research |
| CIP 55 | Sciednedirect | Article | Nurse Education Today | 1999 | Excluded | Content of Article (Health) |
| CIP 56 | T and F online | Article | Journal of Curriculum Studies | 2006 | Excluded | Project Research |
| CIP 57 | Elsevier | Article | Teaching and Teacher Education | 2013 | Excluded | Not related to this research |
| CIP 58 | Pubmed | Article | Child Development | 2015 | Excluded | Not related to this research |
| CIP 59 | Semantic Scholar | Dissertation | ----------- | 2012 | Included | ----------- |
| CIP 60 | Researchspace | Dissertation | ----------- | 2005 | Included | ----------- |
| CIP 61 | ISSR Journals | Article | International Journal of Innovation and Scientific Research | 2017 | Included | ----------- |
| CIP 62 | Academia | Book chapter | General Education Modules | 2000 | Excluded | Beyond the scope of this research |
| CIP 63 | Sage Journals | Article | NASSP | 2000 | Included | ----------- |
| CIP 64 | Eprints | Article | CLLT | 2017 | Included | ----------- |
| CIP 65 | Routledge | Article | Asia Pacific Journal of Education | 2015 | Included | ----------- |
| CIP 66 | Sage Publications | Article | American Educational Research Journal | 2007 | Included | ----------- |
| CIP 67 | Routledge | Article | Journal of Curriculum Studies | 2014 | Excluded | Theoretical Research |
| CIP | Source | Type | Title | Year | Status | Remarks |
|-----|--------|------|-------|------|--------|---------|
| 68  | Eprints | Dissertation | | 2015 | Excluded | Not related to this research |
| 69  | Research Gate | Article | BMC Medical Education | 2018 | Included | |
| 70  | Wiley Online | Article | Science Education | 2008 | Excluded | Not related to this research |
| 71  | Sage Publications | Article | The Journal of Special Education | 1989 | Excluded | Theoretical Research |
| 72  | Arvix | Proceeding | IEEE/CVF Winter Conference on Applications of Computer | 2019 | Excluded | Beyond the scope of this research |
| 73  | Atbuftejoste | Article | Journal of Science Technology and Education | 2019 | Included | |
| 74  | Pubmed | Article | Journal of School Health | 2008 | Included | |
| 75  | Scholarworks | Article | Graduate Student Theses, Dissertations, & Professional Papers | 2007 | Excluded | Not related to this research |
| 76  | Uzspace | Dissertation | | 2018 | Included | |
| 77  | Research Gate | Article | Universal Journal of Educational Research | 2016 | Included | |
| 78  | Tijoss | Article | The International Journal of Social Sciences | 2013 | Included | |
| 79  | Research Gate | Article | The New Educational Review | 2018 | Included | |
| 80  | T and F online | Article | The Curriculum Journal | 2015 | Included | |
| 81  | Research Gate | Proceeding | Proc. of the First Int. Conference on Concept Mapping | 2004 | Excluded | Beyond the scope of this research |
| 82  | Google Scholar | Article | Asia Pacific Journal on Curriculum Studies | 2018 | Included | |
| 83  | Researchspace | Dissertation | | 2001 | Included | |
| 84  | Eprints | Article | English, Teaching, Learning and Research Journal | 2015 | Included | |
| 85  | Semantic Scholar | Article | Research on Humanities and Social Sciences | 2017 | Included | |
| 86  | Eric | Report | Center on Innovations on Learning | 2016 | Excluded | Beyond the scope of this research |
| 87  | T and F online | Article | Early Education/Development | 2014 | Included | |
| CIP 88 | Dergipark | Article | H. U. Journal of Education | 2013 | Included | -------------- |
|------|-----------|---------|--------------------------|------|---------|---------------|
| CIP 89 | Springerlink | Article | Asia Pacific Education Review | 2008 | Included | -------------- |
| CIP 90 | Eric | Article | US-China Education Review | 2013 | Included | -------------- |
| CIP 91 | Semantic Scholar | Article | International Journal of Instruction | 2018 | Excluded | Not related to this research |
| CIP 92 | Elsevier | Article | International Journal of Educational Development | 2010 | Excluded | No related to this research |
| CIP 93 | Semantic Scholar | Dissertation | ------------ | 2015 | Included | -------------- |
| CIP 94 | Science Direct | Article | Teaching and Teacher Education | 2008 | Included | -------------- |
| CIP 95 | Cambridge | News Article | English Today | 2014 | Excluded | Not related to this research |
| CIP 96 | Research Gate | Article | Journal of Education and Practice | 2015 | Included | -------------- |
| CIP 97 | Acikerisimarsiv | Dissertation | ------------ | 2006 | Included | -------------- |
| CIP 98 | T and F online | Article | Early child development and care | 2003 | Included | -------------- |
| CIP 99 | Research Gate | Article | African Higher Education Review | 2010 | Included | -------------- |
| CIP 100 | U1.adsabs | Proceeding | AIP Conference Proceedings | 2017 | Excluded | Beyond the scope of this research |
| CIP 101 | Repository | Dissertation | ------------ | 2010 | Included | -------------- |
| CIP 102 | Research Gate | Article | Iranian Journal of Language Studies | 2009 | Included | -------------- |
| CIP 103 | AERA | Article | Review of Educational Research | 1977 | Excluded | Theoretical Research |
| CIP 104 | UNC press | Article | The High School Journal | 1999 | Included | -------------- |
| CIP 105 | Research Gate | Article | The Linguistic Journal | 2009 | Included | -------------- |
| CIP 106 | Sciepub | Article | Journal of Education and Practice | 2013 | Included | -------------- |
| CIP 107 | Eric | Article | US-China Education Review | 2013 | Included | -------------- |
| CIP 108 | Research Gate | Article | The Journal of International Social Research | 2009 | Included | -------------- |

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