



## Knowledge of Prospective Mathematics Teachers About Preparation Lesson Plans in the Curriculum 2013

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### ABSTRACT

Improving the quality of learning for candidates of prospective mathematics teachers is needed, so prospective educators can improve the quality of learning and education in Indonesia. Moreover, PPL students (Field Experience Program) is still very minimal knowledge about curriculum 2013. This research aims to describe the knowledge of prospective mathematics teachers in the preparation of a Lesson Plan (RPP) in the curriculum 2013. Techniques used in data collection include (1) documentation in the form of a collection of lesson plans (RPP) and (2) structured interviews. The knowledge of mathematics teacher candidates about the curriculum 2013 in the preparation of RPP, shows that Subject 2 is higher than Subject 1. Subject 1 with an average of 3.45, and Subject 2 with 3.57. The results of the analysis of the assessment conducted show that the knowledge of mathematics teacher candidates about the Curriculum 2013 is very good, there are still some inaccurate understandings, such as knowledge of the relationship between curriculum tools, compatibility of KD and components in RPP, sources and media to learn knowledge about the context in preparation of perceptions and motivation and the link between learning activities and learning models.

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### INTRODUCTION

Education is a process that lasts throughout the life of a human. Along with the development of more advanced age, which is characterized by a wide variety of change presents a challenge to the world of education to improve the quality of graduates, so that graduates can stay afloat in an era now and to come. The efforts carried out continuously to make a change that is fundamental to prepare learners to be able to compete with other countries.

In the year of 2013, the government of the Republic of Indonesia performs the refinement of the curriculum by imposing a new curriculum called curriculum 2013 or K13 [1]. The improvements and changes that are fundamentally concerned with the curriculum directly demanded various changes in the component education. Hopefully, all parties related to the implementation of the curriculum are to know and understand the components which have been experienced improvement or change.

Efforts to implement the curriculum 2013 were carried out by conducting outreach to all parties involved in its implementation. One of the important components in implementing the curriculum is the teacher. However, the socialization that has been carried out does not seem to have achieved maximum results. As a result, various problems arose among teachers in implementing the curriculum 2013. Several technical obstacles related to the implementation of the curriculum 2013 were still found. These constraints, among others, are related to planning, implementation, and assessment of learning, as well as the availability of supporting facilities [2].

There are at least two main factors that influence the success of the Curriculum 2013. First, the determinant, namely the suitability of the competence of educators and educational personnel (PTK) with the curriculum and textbooks. Second, the supporting factors consist of three elements; availability of books as teaching materials and learning resources that integrate curriculum-forming standards; strengthening the role of government in guidance and supervision; and strengthening school management and culture.

The implementation of Curriculum 2013 can be seen from all aspects of the activities of teachers and students in the learning is done. The implementation of learning requires the teacher's knowledge about the perspective of the Curriculum 2013. Teachers are required to have knowledge of the curriculum so that they are able to design good and efficient learning.

Effective teachers have the ability to provide concrete, explicit, and interesting instructions, and are also able to apply classroom management and teaching strategies, and build strong relationships with their students [3]. This component is in line with [4] which states that knowledge of the curriculum can be explained in the three components of the teacher's abstraction in thinking and acting, namely the analysis of learning objectives, the selection of learning strategies, and learning management.

Improving the quality of learning for candidates of prospective mathematics teachers is needed, so prospective educators can improve the quality of learning and education in Indonesia. Moreover, students PPL (Field Experience Program) is still very minimal knowledge about curriculum 2013, thus the need for the guidance, direction, and motivation in carrying out the learning activities in accordance with the curriculum 2013 using the learning model approach scientific. Thus, teacher candidates should be able to practice the knowledge gained when on campus so that it is capable in carrying out duties as a teacher and educator. The teacher should have the ability to carry out duties as educators, teachers, and coaches. As a teacher, teachers are required to be able to plan the learning process which includes the use of methods or models of learning, use of learning media, and the assessment of the learning process [5]. There are eight skills the basis of teaching, namely: (1) asking skills, (2) providing reinforcement, (3) skills hold variations, (4) skills explain, (5) the skills of opening and closing of the lesson, (6) skills to guide small group discussion, (7) classroom management skills, and (8) teaching skills of individuals [6]. The eighth basic teaching skill can be observed when a teacher is teaching in a class by using the observation sheet teaching quality. As a professional teacher, then of course before teaching there are a few things that must be prepared, which is a learning device that consists of a teaching methodology that involves multiple elements such as preparing materials that will be taught, choose the appropriate method, and using the appropriate media.

Teachers have a big role in determining the success of education because teachers play a role in the learning process in the classroom [7]. If the review of competence, then readiness is one of the important aspects of it. The success of the implementation of the Curriculum 2013 is strongly influenced by the readiness of the teachers who will implement and actualize their knowledge. The readiness of teachers in the process of teaching and learning is very important in generating and create teaching and effective learning methods [8]. Teachers need to know the content that was taught, plan lessons meaningful for students, organize the material being taught and devise a backup plan [9]. In other words, the teacher is said to have readiness in implementing Curriculum 2013 if the teacher has a mental readiness, knowledge, infrastructure, and readiness to implement the learning.

So the Lesson Plan (RPP) is part of the planning of the learning process besides the syllabus which contains: school/madrasah identity, subjects, class/semester, time allocation, SK / KI, KD, competency achievement indicators, learning objectives, teaching materials, methods learning,

learning activities, assessment, media/tools, and materials, as well as learning resources. So that the competence of preparing lesson plans is the ability to compile and develop lesson plans based on the educational curriculum by containing lesson plan components.

In the analysis of learning objectives, components related to teacher knowledge, about all knowledge and skills students will acquire at the end of learning. This also relates to the focus of the teacher in seeing the achievement of the material at the end of the lesson and how to organize several meetings with appropriate learning strategies [10]. The selection of learning strategies is a component related to choosing the right way to develop student learning with learning objectives to be achieved, including all the use of appropriate media and learning resources [11]. Learning management is a component related to a series of activities carried out by teachers and students during the learning process. Teachers must design classroom management appropriately to create a more productive and proactive classroom experience for students [12].

Knowledge about curriculum is also related to knowledge in the selection and use of appropriate curriculum tools [13]. The development of curriculum tools is one of the primary strategies for improving learning [14]. RPP is a tool used by teachers in guiding student learning activities in an effort to achieve Basic Competence [15]. The lesson plans used by the teacher in the learning process can strengthen the formation of ideas about classroom teaching and practice. A good lesson plan must combine and reflect the knowledge and skills of teachers relevant to the implementation of the lesson plan [16]. Learning activities designed in the lesson plan must be able to develop student potential in order to achieve a balance in attitudes, knowledge, and skills in accordance with the characteristics of the curriculum 2013 [17].

Learning to plan that is reflected in the lesson plan is important, but is often overlooked as an aspect of teaching practice that affects student opportunities to learn. Based on research conducted by [18] it was found that teachers tend to fail to make the right decisions in designing learning activities because of the lack of conceptions that teachers have about the introduction of the curriculum. Knowledge about the curriculum can be seen through the UKG (Teacher Competency Test). The average score results of the 2015 national UKG for junior high school mathematics was 53.58 and senior high school was 42.75. This value indicates that the national UKG score is still below the UKG achievement standard for 2015 of 55, so there is a need for an evaluation of the teacher education and training program.

Based on the results of interviews by researchers in November 2020 with mathematics teachers at SMP Negeri 1 Rumbio Jaya, it was found that senior teachers still experienced problems in preparing lesson plans based on the 2013 Curriculum. The constraints found were difficulties in preparing measurable competency achievement indicators that could reflect competencies will be achieved, difficulties in selecting innovative learning models that are suitable for material sub-topics and can attract student attention and interest, difficulties in designing student-centered learning activities according to the characteristics of the Curriculum 2013, and difficulties in designing assessments that can measure student competency achievement in aspects attitudes, knowledge and skills authentically, varied and continuously. It is hoped that novice teachers and teacher candidates will be able to follow the development of the curriculum because they are able to generate innovative ideas so that later they can work together with senior teachers in learning at school. This is supported by [19] research that professional teacher development can be carried out by forming a relationship between senior teachers and novice teachers.

Based on the importance of teacher knowledge about the curriculum, the importance of the role of lesson plans in the implementation of the curriculum 2013, and the limited description of the

information they have regarding teachers' knowledge of the curriculum 2013, this research aims to determine the knowledge of mathematics teacher candidates about the curriculum 2013 in preparing lesson plans.

## METHODS

This research uses qualitative research with a type of case research. The research subjects were 2 of the 26 seventh semester students of the Mathematics Education Research Program, Universitas Islam Negeri Sultan Syarif Kasim, Riau. The selection of research subjects was carried out using purposive sampling techniques. Students selected to be the subjects of this research are seventh-semester students who have completed Field Experience Program (PPL) courses in schools that implement the Curriculum 2013 and have RPP on certain materials that are compiled and used during PPL.

Techniques used in data collection include (1) documentation in the form of a collection of lesson plans (RPP) and (2) structured interviews. The data validity uses data triangulation techniques. Valid research data is obtained by comparing the results of the analysis of the instruments and the results of the interviews conducted with the students concerned.

The instrument used was adapted based on the RPP assessment instrument in the Teacher Education Program (PPG) 2015 on the grounds that it had gone through the trial phase and in content, there was no difference between RPP in PPG and RPP in undergraduate programs. Furthermore, the instrument was modified according to the knowledge component of the curriculum in this research. The assessment criteria used to determine the knowledge of mathematics teacher candidates about the curriculum 2013 in the preparation of RPP are shown in Table 1.

Table 1. Criteria for Prospective Teacher Knowledge about the Curriculum 2013

Interval	Category
$3,25 \leq x \leq 4$	Very Good
$2,50 \leq x \leq 3,25$	Good
$1,75 \leq x \leq 2,50$	Adequate
$1,00 \leq x \leq 1,75$	Low

## RESULTS AND DISCUSSION

The implementation of the Curriculum 2013 is part of the government's efforts to prepare generations to face the challenges of the 21st century. One of the aspects that is strengthened in the implementation of the curriculum 2013 is character values and religiosity [20]. However, the goals planned in the curriculum will be achieved if their implementation is maximal. Therefore, the implementation of the curriculum must be supported by teacher knowledge in its implementation. Teacher knowledge is very important, because knowledge can influence a person's potential behavior [21]. If the teacher's knowledge is good about implementation, the potential for teacher behavior in implementing the curriculum 2013 will also be good.

The purpose of this research is to determine the knowledge of mathematics teacher candidates about the curriculum 2013 in the preparation of lesson plans (RPP). The lesson plans collected are from subject 1 and subject 2 based on the curriculum 2013 on Relations and Function class VIII material. Based on the 2019 revised syllabus for SMP / MTS, the material is divided into two Basic Competencies (KD), namely KD 3.3 and KD 4.3. In the RPP that has been compiled by Subject 1 and Subject 2, there are differences in the design of the sub-material arrangement at the meeting as in Table 2. The components of the analysis of learning objectives in the curriculum 2013 are as follows:

## 1. Data Analysis on Learning Objectives Component

In Table 2, Subject 1 and Subject 2 compile learning material on relations and functions from relation sub-material to function graphs. In table 2, it can be seen that the sub-material prepared by Subject 1 in the one-on-one Correspondence material is not suitable because the sub-material can still include sub-material 2 or in RPP-2 on the subject of functions or mapping.

Table 2. Composition of Sub-Material and Selection of Learning Model for Each RPP

KD	Subject	RPP	Sub Material	Model Pembelajaran
3.3 Describe and express relations and functions using various representations (words, tables, graphs, diagrams, and equations)	Subject 1	1	Relation	<i>Numbered Heads Together (NHT)</i>
		2	Function or mapping	<i>Numbered Heads Together (NHT)</i>
		3	One-on-one correspondence	<i>Numbered Heads Together (NHT)</i>
4.3 Solve problems related to relations and functions by using various representations	Subject 1	4	Function Notation	<i>Numbered Heads Together (NHT)</i>
		5	Function value	
		5	Function graph	<i>Numbered Heads Together (NHT)</i>
		1	Relation	<i>Think Pair Share (TPS)</i>
		2	Function or mapping	<i>Think Pair Share (TPS)</i>
4.3 Solve problems related to relations and functions by using various representations	Subject 2	3	Relation and function characteristics	<i>Think Pair Share (TPS)</i>
		4	Function formula	<i>Think Pair Share (TPS)</i>
		5	Function graph	<i>Think Pair Share (TPS)</i>

Indicator development is a strategic step in improving the quality of learning in the classroom and achieving student competence. Indicators have a very important role in the design of learning preparation because a good teaching and learning process must be well planned as well. Indicators serve as guidelines in: (i) developing learning materials; (ii) designing learning activities; (iii) developing teaching materials; and (iv) designing and implementing learning outcome assessments [22]. The development of good indicators will measure the basic competencies and competency standards desired by the curriculum in schools because indicators are markers of achieving basic competencies which are marked by measurable student behavior including attitudes, knowledge, and skills.

C. Tujuan Pembelajaran	
<b>1. Pertemuan Pertama</b>	
▪	Siswa dapat menyatakan masalah sehari-hari yang berkaitan dengan relasi dan fungsi
▪	Siswa dapat memahami pengertian relasi
▪	Siswa dapat menyelesaikan masalah yang berkaitan dengan relasi dengan berbagai representasi
<b>2. Pertemuan Kedua</b>	
▪	Siswa dapat menyatakan relasi ke dalam diagram panah.
▪	Siswa dapat menyatakan relasi ke dalam himpunan pasangan berurutan.
▪	Siswa dapat menyatakan relasi ke dalam diagram cartesius.
▪	Siswa dapat menyelesaikan masalah yang berkaitan dengan relasi dengan berbagai representasi
<b>3. Pertemuan Ketiga</b>	
▪	Siswa dapat memahami pengertian fungsi
▪	Siswa dapat memahami domain, kodomain dan range
▪	Siswa dapat menyelesaikan masalah yang berkaitan dengan fungsi dengan berbagai representasi
<b>4. Pertemuan Keempat</b>	
▪	Siswa dapat menghitung nilai fungsi
▪	Siswa dapat menentukan bentuk fungsi dari data dan nilai fungsi
▪	Siswa dapat menghitung nilai peubah fungsi
▪	Siswa dapat menyelesaikan masalah yang berkaitan dengan fungsi dengan berbagai representasi
<b>5. Pertemuan Kelima</b>	
▪	Siswa dapat menyusun tabel pasangan nilai peubah dan nilai fungsi
▪	Siswa dapat menggambar grafik fungsi pada koordinat cartesius
▪	Siswa dapat menyelesaikan masalah yang berkaitan dengan fungsi dengan berbagai representasi

Figure 1. The Learning Objectives of RPP 1 to 5 in Subject 1

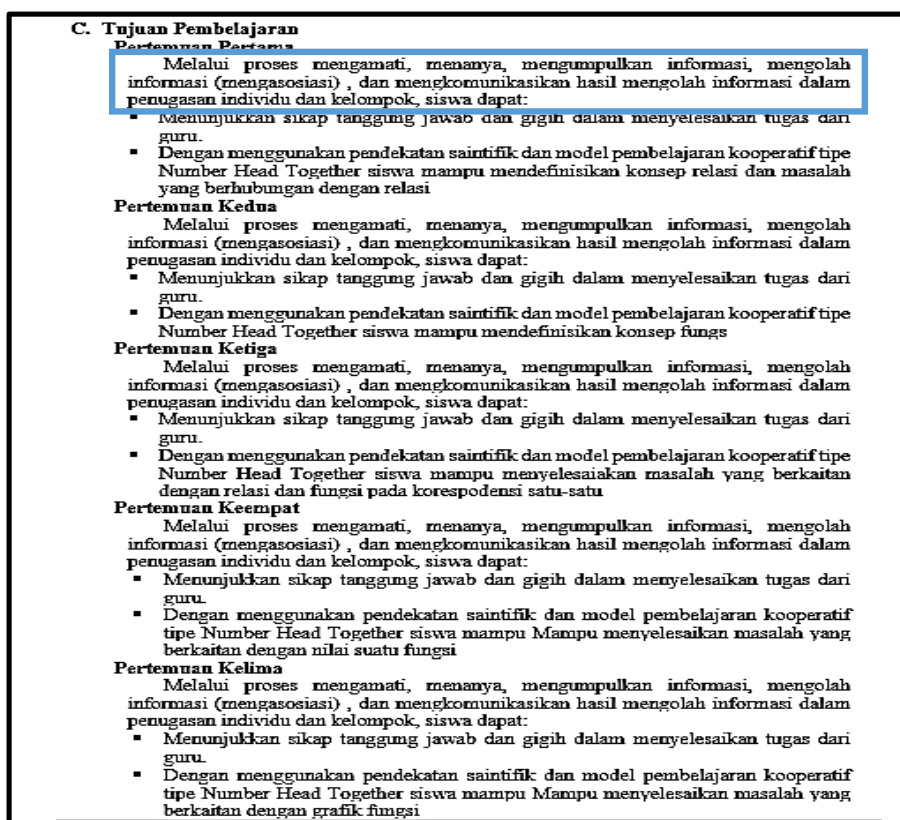


Figure 2. The Learning Objectives of RPP 1 to 5 in Subject 2

In the learning objectives component, teacher candidates have formulated learning objectives. Figure 2 shows that in formulating the learning objectives subject 1 still does not meet the formula from ABCD, namely audience, behavior, condition, and degree. From this figure, Subject 1 only uses the audience and condition. And also in the formulated learning objectives, there are KKO that are not in accordance with the indicators or KD. Figure 3 shows that in formulating the learning objectives of subject 2 it still does not meet the ABCD formula. Subject 2 uses only the inner conditions to formulating learning objectives in general between subject 1 and subject 2, and still does not meet the ABCD formula.

Furthermore, in using the word operational work (KKO), the subject is still confused in determining which is the KKO on the level of competence in accordance with the indicators. KKO used as a reference in this research is set up in the guide to the development of indicators compiled by the ministry. When the teacher asked to choose which one is the verb operational level of knowledge, only a few teachers mentioned that “complement” is the KKO knowledge. Most of the teachers have chosen the “describe” and “sign up” as KKO knowledge. In addition, there are still teachers who choose “groups, complete” as KKO level of knowledge.

To confirm and find out the knowledge of subject 1 and subject 2 about the analysis of learning objectives, here is an interview with the research subject:

- Researcher : How do you arrange the order of topics in the lesson plan?  
 Subject 1 : I followed the order in the student book with K.13  
 Subject 2 : In the preparation of this lesson plan, I refer to examples of lesson plans that I have studied on campus and examples of lesson plans made by my companion teachers.

2. Analysis of the Data on the Components of the Selection of Learning Strategies.

On the component selection of learning strategies, the subject has been using the approach of scientific tools. It's just that researchers find the selection of models used by subjects in the lesson plans that have been compiled varies. Researchers found all learning models in the lesson plans compiled by subject 1 with the Number Head Together (NHT) model and subject 2 using the Think Pair Share (TPS) model can be seen in table 2. Research subjects think that the curriculum 2013 is student-centered learning so that the learning process carried out must make students active, enthusiastic about learning, like learning and not monotonous. And also the researcher saw the suitability of the strategy with the sources and learning media used. The next researcher conducted interviews to find out the subject's reasons why they chose the learning model, sources, and media used. The following is the researcher interview with the research subjects as follows:

- Researcher : Why do researchers use the Think Pair Share (TPS) learning model?  
 Subject 1 : Because the Think Pair Share (TPS) model guides students in discussions, it creates a more lively, active, creative, and fun learning atmosphere.
- Researcher : Why do researchers use the Number Head Together (NHT) learning model?  
 Subject 2 : Because using this model is one of my strategies to get students interested in learning. The students I teach are junior high school students, so they prefer learning that is interspersed with games so that it doesn't get boring.
- Researcher : Has the strategy used been effective to achieve learning objectives? And what do you know about the K13 learning models used?  
 Subject 1 : In my opinion, this has been achieved, because the students are very enthusiastic about learning. it just that I'm short on time. There are several learning models such as the PBL (problem), DL (discovery) model, PPA (in the form of a project) but I think the implementation takes a long time.
- Subject 2 : Some students have gotten good results, but some students have not achieved the desired competencies. But seen from the process, students are very active in learning. There are several models such as PBL, PPA, DL. However, implementation usually does not go according to plan.
- Researcher : What about the results of the formative tests at the end of each meeting? Do the results obtained based on the learning strategies that you apply to reflect the achievement of learning objectives?  
 Subject 1 : Some students have gotten good results, but some students have not achieved the desired competencies. But seen from the process, students are very active in learning.
- Subject 2 : Some students have obtained good results, but some students still have not achieved the desired learning goals.

<p><b>F. Media/Alat Pembelajaran</b>                  Media/alat : Papan tulis, spidol, penghapus papan tulis.</p> <p><b>G. Sumber Belajar</b>                  Buku Paket:</p> <ol style="list-style-type: none"> <li>1. Abdul Rahman As'ari, dkk. 2017. <i>Buku Guru Matematika Kelas VIII Semester 2 untuk SMP/MTs</i>. Jakarta: Kementerian Pendidikan dan Kebudayaan.</li> <li>2. Abdul Rahman As'ari, dkk. 2017. <i>Buku Siswa Matematika Kelas VIII Semester 2 untuk SMP/MTs</i>. Jakarta: Kementerian Pendidikan dan Kebudayaan.</li> </ol>	<p><b>F. Media Pembelajaran</b></p> <ol style="list-style-type: none"> <li>1. Alat                      Alat tulis</li> <li>2. Bahan                      Lembar Kerja Siswa</li> <li>3. Sumber Belajar                     <ul style="list-style-type: none"> <li>• Adinawan, M. Cholik. 2016. <i>Matematika untuk SMP/MTs Kelas VIII Semester 1</i>. Jakarta : Erlangga.</li> </ul> </li> </ol>
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Figure 3. Sources and Learning Media for RPP-1 Subject 1 and Subject 2

Furthermore, Researcher found a match between the chosen strategy and learning sources and media, Subject 1 used more complete learning sources and media, compared to Subject 2 but was monotonous, because the learning models used for each meeting were the same. And on Subject 2 Researcher found a mismatch of the learning sources and media used with the selection of the selected learning model. Subject 2 uses the NHT learning model in the RPP-1 but does not include learning media such as numbered paper that shows the "number" on the NHT model. Subject 2 lists worksheets as learning materials, not as learning sources as the role of worksheets in the 2013 curriculum.

- Researcher : Do you think resources and media are needed in a lesson?
- Subject 1 : In my opinion, learning resources and media are very necessary, because they will support classroom activities according to the chosen learning model
- Subject 2 : I think learning resources and media are needed because they will support the learning process in the classroom.
- Researcher : What do you know about the sources, media, tools, and learning materials in the 2013 Curriculum?
- Subject 1 : Learning resources used for learning, for example, such as student books. Media is like a tool to help the learning process such as a projector. And the tools and materials are almost the same as markers.
- Subject 2 : Learning sources are all sources that students use in learning, for example, student books or could be from the internet. Meanwhile, the media tools used to assist students in learning are, for example, props, and tools and materials are usually used in practicum, such as stationery.

### 3. Data Analysis on the Learning Management Component

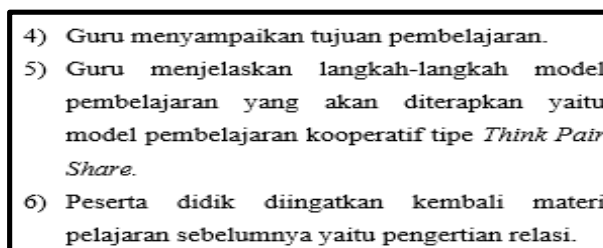
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- 4) Guru menyampaikan tujuan pembelajaran.
  - 5) Guru menjelaskan langkah-langkah model pembelajaran yang akan diterapkan yaitu model pembelajaran kooperatif tipe *Think Pair Share*.
  - 6) Peserta didik diingatkan kembali materi pelajaran sebelumnya yaitu pengertian relasi.

Figure 4. Apperception and Motivation of RPP-1 Subject 1

In the learning management component, the researcher found that Subject 1 had included the delivery of goals, apperception, and motivation in the initial activities for each lesson plan. Although the translation for these perceptions and motivations is not clear and specific, as in Table 3. Subject 1 explains that apperception and motivation are related to the subjects learned are always delivered at the beginning of the lesson, but they are not written specifically in the lesson plan. Subject 1 also explained that often looking for examples of questions in the subject of Relationships and Functions in everyday life is sometimes not quite right.



<b>Kegiatan Inti</b>	<p><b>Fase 1(Penomoran)</b></p> <ul style="list-style-type: none"> <li>Guru membagi siswa menjadi kelompok-kelompok kecil yang terdiri 4-5 orang Kemudian tiap-tiap orang dalam tiap-tiap kelompok diberi nomor 1-5</li> </ul> <p><b>Fase 2 (Mengajukan Pertanyaan)</b></p> <ul style="list-style-type: none"> <li>Guru membagikan lembar kerja siswa kepada masing-masing kelompok dan siswa mendengarkan instruksi untuk membahas lembar kerja siswa</li> <li>Guru memberikan masalah-masalah atau soal-soal yang disajikan dalam LKS</li> <li>Guru memberikan bimbingan kepada siswa pada saat memecahkan masalah-masalah yang disajikan dalam LKS</li> </ul> <p><b>Fase 3 (Berpikir Bersama)</b></p> <ul style="list-style-type: none"> <li>Kelompok mendiskusikan dan jawaban yang benar, menggali informasi, bertukar informasi dan ide.</li> <li>Guru mengarahkan dan memastikan bahwa setiap anggota kelompok harus bertanggung jawab untuk dapat memahami dan mengerjakan pada permasalahan yang ada di Lembar kerja siswa</li> </ul> <p><b>Fase 4 (Menjawab)</b></p> <ul style="list-style-type: none"> <li>Setelah selesai berdiskusi dengan kelompok. Guru memanggil siswa dengan nomor tertentu. Kemudian siswa menjawab pertanyaan atau mempresentasikan hasil diskusi kelompok nya untuk seluruh kelas</li> <li>Guru memberikan kesempatan kepada kelompok lain untuk menanggapi hasil diskusi dari kelompok yang lain dengan memanggil nomor secara acak</li> <li>Masing-masing kelompok mengoreksi hasil diskusinya berdasarkan diskusi kelas</li> </ul>	<b>60 menit</b>
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Figure 5. Main Activities of RPP-1 Subject 1

The same findings regarding the mismatch between the learning steps and the syntax according to the learning model used were also found in the core activities of RPP-1 by Subject 1. Subject 1 used the Team Games Tournament (TGT) model, but the learning steps were not appropriate as consisting of teams, games, tournaments, and team recognition [23]. The core activities in the lesson plan are presented in general terms and do not describe the characteristics of the learning model used.

<b>Kegiatan Inti</b>	<p>8) Guru menjelaskan tentang materi relasi secara garis besar</p> <p>9) Guru meminta peserta didik untuk membaca dan memahami masalah pada buku paket yang dimiliki, secara individu (<i>think</i>);</p> <p>10) Guru meminta peserta didik untuk mendiskusikan permasalahan yang ada pada buku paket halaman 75-76 (<i>pair</i>).</p> <p>11) Guru meminta peserta didik untuk mempresentasikan hasil diskusinya (<i>share</i>).</p> <p>12) Guru meminta kelompok lain menanggapi hasil presentasi.</p> <p>13) Guru memberikan tanggapan terhadap hasil presentasi peserta didik meliputi tanya jawab untuk mengkonfirmasi, maupun melengkapi informasi peserta didik.</p> <p>14) Guru memberikan penghargaan berupa penguatan masing-masing kelompok.</p>	<b>60 Menit</b>
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Figure 6. Stages of Main Activities of RPP-1 Subject 2

In the steps of the core learning activities, it was found a mismatch of the steps according to the learning model implemented. Subject 2 uses the Think Pair Share (TPS) model, but the steps in the lesson plan do not match the curriculum 2013 with the Think Pair Share (TPS) model, which is the thinking stage of students being given the opportunity to think about their ideas about questions or discourses given by the teacher. In pairing students determine who they will pair with the aim that students can discuss and deepen the ideas that each student has found and at the sharing stage students provide ideas that have been agreed upon with their group friends then the ideas are shared

with other groups through discussion and question and answer activities [24]. The following is the Researcher's interview with the Subject Researcher as follows:

- Researcher : What do you know about perception and motivation?  
 Subject 1 : Apperception and motivation are activities at the beginning of learning, where the teacher provides information to students.  
 Subject 2 : Apperception must be done when they want to teach material, or the initial basis for students to learn new material.  
 Researcher : What is the syntax for the Number Head Together (NHT) model you wrote in the main activity?  
 Subject 1 : In each RPP plan, the activities begin with Phase 1 (Numbering), Phase 2 (Asking Questions), Phase 3 (Thinking Together) to Phase 4 (Answering).  
 Researcher : What is the syntax for Think Pair Share (TPS) model that you wrote in the main activity?  
 Subject 2 : In each RPP plan at the *think* stage, students are asked to read and understand the problems in the textbook they have, individually and in pairs of students discussing with their group partners to the sharing stage, several groups present the results of their discussion.

7. Guru menanyakan pemahaman siswa tentang materi prasyarat yaitu Himpunan

8. Guru menjelaskan materi yang penting-penting dan menyajikan beberapa contoh mengenai himpunan dan mengarahkan siswa kepada materi definisi relasi

Figure 7. Apperception and Motivation of RPP-1 Subject 2

In the learning management component, it can be seen as a whole in the RPP. Subject 2 has something in common with Subject 1, namely, it includes goals, perceptions, and motivations, although the description of each component is not clear and specific. The results of the assessment and analysis of the RPP plan for each component can be seen in Table 3.

Table 3. The Results of The Assessment And Analysis of the RPP Plan

No.	Components are rated	Subject 1					Subject 2				
		RPP					RPP				
		1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>
1.	Analysis of learning objectives	3,7	3,3	2,7	3,7	4,0	3,0	3,3	3,8	4,0	4,0
2.	Selection of learning strategies	2,7	3,3	3,7	2,7	3,7	3,0	3,0	3,7	3,8	4,0
3.	Management of learning	3,3	3,7	3,3	4,0	4,0	3,3	3,7	3,0	4,0	4,0
<b>Average</b>		<b>3,45 (Very Good)</b>					<b>3,57 (Very Good)</b>				

Based on the results of the RPP analysis assessment for each component, it can be seen that the knowledge of mathematics teacher candidates about the curriculum 2013 in the preparation of RPP, the value of Subject 2 is higher than Subject 1. This is because Subject 2 is more complete and in accordance with curriculum 2013. Based on the syllabus of the revised 2019 for SMP/MTs, material relations and functions are divided into two Basic Competence (KD).

## CONCLUSIONS AND SUGGESTIONS

Based on the results of the research obtained through analysis and discussion, it can be concluded that the knowledge of mathematics teacher candidates of curriculum 2013, regarding the preparation of subject RPP for semester 7 students in the Mathematics Education of Universitas Islam Negeri Sultan Syarif Kasim Riau, is very good. Subject 1 with an average of 3.45, and Subject 2 with 3.57. The results of the analysis of the assessment conducted show that the knowledge of mathematics teacher candidates about the Curriculum 2013 is very good, there are still some inaccurate understandings, such as knowledge of the relationship between curriculum tools, compatibility of KD and components in RPP, sources and media to learn knowledge about context in preparation of perceptions and motivation and the link between learning activities and learning models.

Most of the teacher candidates already have RPP plans before starting learning, but only a small proportion of them can compile the RPP plans themselves, only a few carry out the lessons according to the RPP plans prepared. Furthermore, although most teacher candidates have learned how to prepare RPP plans, most teacher candidates still do not understand the indicator of development mechanism properly. They find it difficult to determine KKO knowledge, carry out the process and implementation, and evaluation. One of the positive findings in the Research Program is that most teacher candidates have developed at least 3 learning indicators in each KD.

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