The contribution of learning motivation and self-confidence towards the resolution of students'learning problems

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Abstract: Students' ability to solve learning problems is influenced by the factors of learning motivation and self-confidence. Students who are able to solve problems in learning will be able to get satisfying results. Students who are unable to solve problems in learning will experience failure in achieving a goal. This study aims at looking at the contribution of learning motivation and self-confidence to the ability to solve the problem of student learning at SMAN 1 Lintau Buo. This type of research was quantitative with correlational methods. The sample of this research was the students of class X and X1 of SMAN 1 Lintau Buo identified from the AUM PTSDL results having the most problems. The research instrument used a learning motivastions, self confidence and the resolution of students learning problems. The result of the reliability test of the learning problem-solving ability was 0.759. The research data were analyzed by using multiple regressions. The research findings showed that: learning motivation, in general, was in the high category. The students'self-confidence was generally in the high category. The students' problem-solving abilities were generally in the high category. The learning motivation contributed positively and significantly to the learning problem-solving abilities. The self-confidence contributed positively and significantly to students' learning problem-solving abilities, and the learning motivation and self-confidence together contributed positively and significantly to the students' learning problem understanding abilities.

Keywords: Learning Motivation, Self-Confidence, Learning Problem Solving Ability

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Introduction

Learning activities require a lot of knowledge in directing and conveying information, so as not to cause an error on parents, teachers and students. But in an effort to achieve satisfying learning outcomes learning process is needed. The learning process that occurs in students is something that is important, because through learning students can get to know the environment and adapt to the surrounding environment.

Students carry out learning process activities influenced by the components that exist in learning activities. Jonassen(2010)asserts that the main focus in learning is learning to solve problems. Problem solving ability is an important skill possessed by students (Keratas & Khbibah, 2013). Students must have the ability to solve problems, so students have the ability to think, reason, predict and find solutions to

problems that are given (Pimta, Tayruakham, & Nuangchelerm, 2009). Thus, students need good skills to be able to solve a problem.

Learning activities usually begin with the presentation of real problems that have been experienced or can be thought out and acceptable to the minds of students and continued by giving opportunities to students to learn new ideas. The problem is an obstacle or problem that must be solved in other words the problem is the gap between reality and something that is expected. Problem solving is the process of accepting challenges and trying to solve them until they find a solution.

The ability to solve student learning problems will be seen from students' mastery of the previous subject matter. Prayitno(2012)

explains the five components of learning activities which are, prerequisites for mastering subject matter abbreviated as P, learning skills abbreviated as T, learning facilities abbreviated as S, personal self-conditions abbreviated as D, and environmental and socio-emotional conditions abbreviated as L. Students in order to master and understand new subject matter, must first be able to master the subject matter beforehand, which is directly related to the new subject matter. Student learning activities carried out regularly, sequentially, and gradually to learn and master new subject matter which is a prerequisite for mastering subject matter.

The conditions regarding the components of learning activities which include the PTSDL condition of the student, describe the quality of learning activities undertaken by students and the problems they experience, which in turn affect or even determine the quality or quality of learning outcomes achieved by students. More specifically, AUM PTSDL is used to detect backgrounds about student learning outcomes that are not satisfactory, because the learning activities undertaken by students are inadequate and not as expected and less optimal. The intended conditions of learning activities are in the areas of PTSDL students. Thus, the condition of students' PTSDL, which are components of learning activities, really needs to be disclosed in order to help students overcome the problems of learning activities experienced in order to achieve high and optimal student learning outcomes. Nuzliah(2013) explain that the ability of students of SMPN 29 Padang in solving learning problems as a whole is in the low category.

Based on the above research result regarding the ability of students in problem solving is indeed a very important thing in the daily lives of every human being including students. This is caused by several factors: (1) the students are lazy and do not care about the problems in the learning process, (2) there are still students who do not do the given task, (3) there are still students who do not have an understanding the importance of solving problems in learning. (4) there are still students who cannot answer the questions given by the teacher. A student who experiences a problem can hamper their learning process. The inability of students in problem solving will result in avoiding behavior from problems, so that students' problems will not be resolved properly and will probably increase.

Based on the data above and the phenomenon in SMAN 1 Lintau Buo, from the results of the PTSDL AUM processing given by the BK teacher to class X students, the average group result of P (Prerequisite for Content Satisfaction) students was 16.4%; T (learning skills) was 64%; S (infrastructure) was 14.89%; D (Personal Self) was 33%; and L (socio emotional environment) was 11%. Based on the PTSDL AUM results it can be understood that the students at SMAN 1 Lintau Buo still lack understanding and ability to solve problems, especially in their learning. They still have symptoms of solving low learning problems.

Based on the results of researchers' interviews with Mathematics subject teachers at SMAN 1 Lintau Buo in August 2019, the information was obtained that the students were still lazy and did not care about the problems in the learning process. There were still students who did not do the assignments. There were also still students who do not have an understanding of the importance of solving problems in learning. Moreover, there are still students who cannot answer the questions given by the teacher. There are still students who lack self-confidence that they are able to solve problems in their learning. Santrock(2012) stated that if students are already skilled in solving problems, they will find it difficult to do so if there is no motivation to use their abilities. Agustin, Wijayanti, & Winarti(2014)concluded that motivation and learning activities have a significant effect on students' problem solving abilities. Another factor that influences problem solving is self-confidence. Yusuf(2013) explains that self-confidence is how a person sees himself. This means personal attitudes and perspectives, confidence and trust in one's own abilities, especially in solving learning problems.

Furthermore, Ghufron & Risnawita(2014)explained that self-confidence is the belief to do something about the subject as a personal characteristic in which there is confidence in one's ability, optimism, objectivity, responsibility, rationality, and realistic. Confidence is the mental attitude of a person in assessing themselves and surrounding objects so that the person has confidence in his ability to be able to do something in accordance with his abilities. Callejo & Vila(2009)established that dualistic belief systems arising from students 'school experiences and motivations have an effect on students' approaches to the problem solving process; in highlighting the importance of beliefs in terms of students' efforts to solve mathematical problems, states that the process of problem solving does not include cognitive application alone. Both knowledge and beliefs affect problem solving.

Based on the theory and results of the research, it is described earlier that there are variations about students' problem solving. The variety of students' problem solving levels is thought to be caused by several factors including motivation and self-confidence. Therefore, it is necessary to study and conduct scientific research. The general objective in this study is to express the contribution of self-confidence, learning motivation towards students' problem solving in learning. While the specific objectives in this study are to describe: (1) learning motivation in SMAN 1 Lintau Buo, (2) confidence in SMAN 1 Lintau Buo, (3) students' problem solving skills in studying at SMAN 1 Lintau Buo, (4) The contribution of learning motivation to students' problem solving in learning, (5) The contribution of self-confidence to students' problem solving in learning, (6) The contribution of learning motivation, joint confidence to students' problem solving in learning.

Method

This type of research was quantitative with a correlational approach and analyzed by using multiple regression. The research subjects were the students of class X and XI of SMAN 1 Lintau Buo consisting of 90 students who had learning problems that were seen in the processing of AUM PTSDL. The research instrument used a Likert scale using two adoption questionnaires and one questionnaire made by researchers who have fulfilled the validity and reliability requirements of the research instrument. Then, the data were analyzed by using descriptive analysis and multiple regression analysis using the Statistical Product and Service Solution (SPSS) program version 20.00.

Results and Discussion

This study went through three stages of expert validation, the first stage was expert validation of the contents or guidance material. The results obtained are overall experts' assessment of the content or material of guidance in a feasible category with a percentage of 88%. That is, the guidelines that have been made in content are considered appropriate by the experts. Then the Kendall concordance significance test is performed, to determine the appropriateness or alignment of the assessment between one expert with another. The calculated chi square value obtained was 12,000 and the chi square table value with df 4 was 9.49. This means that the calculated chi square value is greater than the value of the chi square table. Then based on the probability value obtained at 0.017. If the probability value is smaller than 0.05 then Ha is accepted (0.017 <0.05). So that it can be interpreted that there is harmony or appropriateness of judgments between the three experts against the guidelines made.

Learning Motivation

The description of the students' learning motivation of SMAN 1 LintauBuo based on the criteria for grouping descriptive data on the results of the study can be seen in the following table:

Table 1. The Frequency of Students' Motivation in SMAN 1 Lintau Buo (N = 90)

Criteria	Score interval	Frequency	Percentage (%)
Very High (ST)	≥ 146	1	1,1
High (T)	118 – 145	60	66,7
Average (S)	89 – 117	28	31,1
Low (R)	61 – 88	1	1,1
Very Low (SR)	≤ 60	-	-
Total		**90**	**100**

Based on the categorization above, it can be concluded that student motivation is in the high category of 66.7% meaning that 60 students have high learning motivation and 1 student of SMAN 1 LintauBuo (1.1%) has a very high learning motivation. While as many as 28 students of SMAN 1 LintauBuo (31.1%) had learning motivation in the medium category and 1 person had low learning motivation.

Self-Confidence

A description of the confidence of students of SMAN 1 Lintau Buo based on the criteria of grouping descriptive data on the results of the study can be seen in the following table:

Table 2. The Frequency of Students' Self-Confidence of SMAN 1 Lintau Buo (N = 90)

Criteria	Score interval	Frequency	Percentage (%)
Very High (ST)	≥ 60	7	7,8
High (T)	49 – 59	54	60
Average (S)	38 – 48	28	31,1
Low (R)	27 – 37	1	1,1
Very Low (SR)	≤ 26	-	-
Total		**90**	**100**

Based on the categorization above, it can be concluded that the students' self-confidence of SMAN 1 Lintau Buo in the high category was 60%. It means that there are 54 students of SMAN 1 Lintau Buo who have high self-confidence and 7 students of SMAN 1 Lintau Buo (7.8%) have very high self-confidence. There are 28 students (31,`%) still have average self-confidence and 1 person (1.1%) has low self-confidence.

Learning Problem Solving Ability

The description of the students' problem solving ability in learning at SMAN 1 Lintau Buo based on the descriptive data grouping criteria of the research results can be seen in the following table:

Table 3. The Frequency of Problem Solving Capabilities (N = 90)

Criteria	Score interval	Frequency	Percentage (%)
Very High **(ST)**	≥ 98	**8**	**8,9**
High **(T)**	80 – 97	**51**	**56,7**
Average**(S)**	62 – 79	**30**	**33,3**
Low **(R)**	44 – 61	**1**	**1,1**
Very Low **(SR)**	≤ 43	**-**	**-**
Total		**90**	**100**

Based on the categorization above, it can be concluded that the problem solving ability of SMAN 1 Lintau Buo students was in the high category that was 56.7%. It means that there are 51 students of SMAN 1 Lintau Buo who have high problem solving ability. Meanwhile, there were 8 students (8.9%) who had very high problem solving skills. Nevertheless, there were still 30 students (33.3%) who have a problem-solving ability in the average category and 1 student (1.1%) who had a problem-solving ability in the low category.

The results of the hypothesis testing of learning motivation towards students' learning problem solving abilities as seen in the following table:

Table 4.The Research Hypothesis Testing Results

Variable	R	R Square	Significance
X_1Y	0,606	0,368	0,000
X_2-Y	0,288	0,083	0,006
$X_1 X_2 -Y$	0,633	0,401	0,000

Table 4 shows the results of the research hypothesis testing. On the motivation variable on problem solving ability, the value of R was 0.606, which showed the regression coefficient of learning motivation toward problem solving ability. R Square (R2) value of 0.368, means 36.8% of the contribution of learning motivation to problem solving skills with a significance level of 0.000 less than 0.05. The results of the analysis showed that learning motivation contributed positively and significantly to the students' learning problem solving abilities.

Meanwhile, the variable confidence in the ability to solve problem learning R value was 0.288, which showed the regression coefficient of confidence in the ability to solve problems. R Square (R2) value was 0.083. It means that 8.3% contribution of self-confidence to the ability to solve problems with a significance level of 0.006 is smaller than 0.05. The results of the analysis showed a positive contribution between self-confidence in students' learning problem solving abilities.

Then, the third hypothesis was the contribution of learning motivation and self-confidence to the problem-solving ability of learning R value that was 0.633. It showed a multiple regression coefficient of learning motivation and self-confidence in problem solving ability. R Square (R2) value was 0.401. It means that 40.1% motivation and self-confidence contributed together to the ability of problem solving with a significance value of 0,000. The results of the analysis showed a positive contribution between learning motivation and confidence in the ability to solve student learning problems.

Discussion
Learning Motivation
Based on the description results of the study results it was known that overall the students' motivation to learn of SMAN 1 Lintau Buowas in the high category. This is consistent with what was stated by (Dalyono, 2009) a person who learns with strong motivation, will carry out all of his learning activities seriously, fully passion or enthusiasm. Conversely, learning with weak motivation, will be lazy even do not want to do tasks related to the lesson.

The results of this study also showed that there were still students who had average, low and very low learning motivation. Therefore students' motivation still needs to be improved so that they do not have low learning motivation. Increasing adolescent learning motivation is not only done by students without help from others such as parents, teachers and the community. Based on the achievement of each sub-variable, it is known that the eight sub-variables of student learning motivation are: diligent in facing tasks, resilient in facing learning difficulties, happy working alone, not easily bored, able to pay attention to opinions and maintain opinions and happy to find and solve problem problems and it is not easy to let go of what is believed to be in the high category, while the sub-variables indicate high interest in learning in the medium category. That is, there are still students who have not yet developed a high level of interest in learning.

In doing assignments the students still need help from others. Learning motivation leads to how students are encouraged to carry out learning activities in order to improve the quality of learning well. The conditions of high students' motivation need to be maintained, developed, and improved in the learning process because after all the students arrive at a condition of learning motivation like this is not easy. The results of this study are in line with the theory put forward by Sardiman(2014) namely that motivation is a condition that encourages students to conduct learning activities in order to improve the quality of learning well. If students have strong motivation, there will be a lot of energy to carry out learning activities. According to (Hamalik, 2000) techniques to motivate students to study harder are:

1. Awarding or rewarding
    Giving awards can arouse children's interest to learn or do something. The purpose of giving awards is to arouse or develop interest.
    Giving a grade or grade on the child's success in doing certain tasks.
2. Success and aspiration level.
3. Praise with a normal scale and not excessive.
4. Competition and cooperation.
5. Giving hope.

Self-Confidence

Based on the results of the processing of the description of the study resultsit was knownthat overall the students' self-confidence of SMAN 1 Lintau Buowas in the High category. Confidence is the mental attitude of a person in assessing themselves and surrounding objects so that the person has confidence in his ability to be able to do something in accordance with his abilities (Ghufron & Risnawita, 2014). Based on the achievement of each sub-variable, it is known that the four sub-variables, namely belief in oneself were in the average category; Positive thinking wasin thvery high category; Having locus of control and Dare to accept rejection were in the high category. The results of Muslim and Mudjiran (2016) research on the contribution of self-concept and parental support to student learning motivation and its implications in guidance and counseling services, show that self-confidence will increase the ability to motivate learning, so students are able to solve learning problems.

As stated by Fatimah (2010) the characteristics of individuals who have proportional self-confidence include the following.

1. Believe in your competence / ability so you don't need praise, recognition, acceptance, or respect for others.
2. Not motivated to show conformist attitude in order to be accepted by other people or groups.
3. Dare to accept and face the rejection of others, dare to be yourself.
4. Have good self-control (not moody and emotionally stable).
5. Having an internal *locus of control* (looking at success or failure, depending on one's own efforts and not easily giving up on fate or circumstances and not depending / expecting help from others).
6. Having a positive perspective on yourself, others and situations outside of him.
    g) Having realistic expectations of oneself, so that when those expectations are not realized, a person is still able to see the positive side of himself and the situation that occurs.

Learning Problem Solving Ability

The descriptive analysis results showed that problem solving (problem solving) students in learning as a whole were in the high category. Florence(2011)suggests that problem solving activities provide an opportunity for students to use their imagination, try to realize student ideas, and think about various possibilities. Based on the achievement of each sub-variable, it is known that the four sub-variables: Finding and understanding learning problems, Developing learning problem solving strategies, Exploring learning solutions, Thinking and redefining problems and learning solutions from time to time are in the high category. This means that the students' problem solving ability in learning is good and must be maintained and improved.

Based on the results of research and exposure that has been explained it can be concluded that the students' problem solving (problem solving) in learning is good but needs to be improved again. BK teachers are expected to provide guidance to students so students can improve the students' problem solving (problem solving) in learning, so they will achieve the desired goals. The results of this study indicated that there was a contribution of learning motivation to problem solving (problem solving) of student learning. These findings were obtained based on a series of data analysis which showed that the contribution of learning motivation to problem solving (problem solving) students in learning was 36.8%. This means that the higher the motivation to learn, the easier it will be for students to solve learning problems.

Conversely, the lower the motivation of student learning is the lower the problem solving learning. Sardiman(2014) motivation can function as a business driver and achievement. Students do an effort because of motivation. Good motivation in learning will show good results. In other words, with a diligent effort and mainly based on motivation, someone who learns will be able to give birth to good

achievements. Students who have high motivation make it easy to find alternative solutions to learning problems. Uno(2014) learning motivation can arise due to intrinsic factors, in the form of the desire and desire to succeed and the drive for learning needs, hopes for ideals. Meanwhile, the extrinsic factor is the appreciation of a conducive learning environment, and interesting learning activities. The results of this study indicated that learning motivation contributed more strongly than self-confidence. Learning motivation is one of the factors that influence problem solving. Students who have the desire to learn surely are the students who will do anything to achieve the success in learning.

The Contribution of Confidence in Learning Problem Solving Ability.

The results of this study indicated that there was a contribution of self-confidence to the problem solving (problem solving) of student learning. These findings were obtained based on a series of data analysis which showed that the contribution of learning motivation to students' problem solving (problem solving) in learning that was 8.3%. This means that the higher the student's confidence, the easier it will be for students to solve learning problems. However, the contribution of students 'self-confidence in research was still small towards students' problem solving ability.

The Contribution of Learning Motivation and Self Confidence to the Problem Solving Ability of Learning

The results of this study indicated that there was a contribution to learning motivation and confidence in problem solving (problem solving) learning. These findings were obtained based on a series of data analysis which showed that the contribution of learning motivation and confidence in students' problem solving (problem solving) in learning that was 40, 1%. Therefore, in problem solving (problem solving) there needs to be motivation to learn and self-confidence.

Problem solving in learning is really needed by students so it is very necessary guidance and direction from the teacher. Problem solving (problem solving) in learning that is guided by the teacher. This allows students to produce developments to obtain satisfying learning outcomes. Problem solving (problem solving) in learning many parties involved, such as students, teachers, and BK teachers. Problem solving (problem solving) in learning will also be easy if students will solve problems by creating something new. Ormrod(2008) says there are 4 factors that influence problem solving in learning, namely (1) students can think when students work on a problem, (2) students solve a problem affecting the approach in their efforts to solve problems, (3) students usually solve problems more effectively if students have a comprehensive and integrated knowledge base that is relevant to the topic of learning, (4) complex problem solving requires metacognitive involvement. From these four factors, it is easy for students to be able to solve problems flexibly. When students get problems in learning surely students will think about how to solve problems, will look for various ways to be able to solve learning problems. Students are able to solve problems effectively with the knowledge they have. Minarsih and Nirwana (2017) research results about the contribution of motivation to solve problems and interpersonal communication to students' problem solving strategies, the results obtained that student motivation in solving problems is very necessary, so students are able to solve learning problems well. Various ways can be done to help students in solving personal problems related to their learning. According to Fitri and Marjohan, (2017) group counseling services are very useful in solving students 'personal problems, this can be seen from group activities that discuss students' personal problems, one of which is related to learning problems at school. Students are more open in conveying problems and students get their problem solving from group peers.

Conclusion

The findings of the research can be summarized as follows is learning motivation in general is in the high category. Student confidence in general is in the high category. Problem solving abilities in general are in the high category. Learning motivation contributes significantly to the learning problem solving ability. Learning motivation contributed 36.8%. Self-confidence contributes significantly to the learning problem solving ability. Self-confidence contributed 8.3%. Learning motivation and self-confidence together contribute significantly positively to the ability to solve learning problems. The contribution was 40.1%. The higher the motivation to learn and the higher the self-confidence is the higher the students' learning solving ability.

Research needs to be done using a qualitative approach, so that it can deepen, clarify and provide the latest findings related to self-confidence, learning motivation and the ability to solve student learning problems. Conduct research module development on increasing self-confidence, learning motivation and students' learning problem solving abilities.

References

Agustin, R. N., Wijayanti, K., & Winarti. (2014). Pengaruh motivasi dan aktivitas belajar terhadap kemampuan pemecahan masalah. *Unnes Journal of Mathematics Eduvation*.

Callejo, L. M., & Vila, A. (2009). Approach to mathematical problem solving and student' beliefs systems: Two case studies. *Educational Studies in Mathematics*.

Dalyono. (2009). *Psikilogi pendidikan*. Jakarta: Rineka Cipta.

Fatimah, E. (2010). *Psikologi perkembangan*. Bandung: Pustaka Setia.

Fitri, E. N., & Marjohan, M. (2017). Manfaat Layanan Konseling Kelompok dalam Menyelesaikan Masalah Pribadi Siswa. *Jurnal EDUCATIO: Jurnal Pendidikan Indonesia*, *2*(2), 19-24.

Florence, B. (2011). *Creative learning: Strategi pembelajaran untuk melesatkan kreativitas siswa*. Bandung: Nusa Media.

Ghufron, M., & Risnawita, R. (2014). *Teori psikologi*. Yogyakarta: Ar-Ruzz Media.

Hamalik, O. (2000). *Proses belajar mengajar*. Bandung: Sinar Baru Algensindo.

Jonassen, D. H. (2010). *Designing for problem solving. Curators' Professor*. Missouri: University of Missouri.

Keratas, I., & Khbibah, S. S. (2013). The effect of learning environments based on problem solving on students' achievements of problem solving. *Journal of Elementary Education*.

Minarsi, M., Nirwana, H., & Syukur, Y. (2017). Kontribusi Motivasi Menyelesaikan Masalah dan Komunikasi Interpersonal terhadap Strategi Pemecahan Masalah Siswa Sekolah Menengah. *JPPI (Jurnal Penelitian Pendidikan Indonesia)*, *3*(2), 1-14.

Nuzliah. (2013). The contribution of motivation to learn, creativity to students' problem solving (students' problem solving) in learning in the application of Guidance and Counseling at SMPN 29 Padang. *Journal of Educational*.

Ormrod, J. E. (2008). *Eduvational psychology*. America: Pearson Education.

Pimta, S., Tayruakham, S., & Nuangchelerm, P. (2009). . Factors Indluencing Mathematics Problem Solving Ability of Sixth Grade Studens. *Journal of Social Sciences*.

Prayitno. (2012). *Seri panduan layanan dan kegiatan pendukung*. Padang: FIP UNP.

Santrock, J. W. (2012). *Educational psychology*. New York: University of Texas at Dallas.

Saragi, M. P. D., Iswari, M., & Mudjiran, M. (2016). Kontribusi Konsep Diri Dan Dukungan Orangtua terhadap Motivasi Belajar Siswa dan Implikasinya dalam Pelayanan Bimbingan dan Konseling. *Konselor*, *5*(1), 1-14.

Sardiman. (2014). *Interaksi & motivasi belajar mengajar*. Jakarta: Raja Grafindo Persada.

Uno, H. B. (2014). *Teori motivasi dan pengukurannya*. Jakarta: Bumi Aksara.

Yusuf, A. M. (2013). *Metodologi penelitian kuantitatif, kualitatif, & penelitian gabungan*. Padang: UNP Press.