

Pamomong: Journal of Islamic Educational Counseling p-ISSN: 2774-583x | e-ISSN: 2808-8565 Website Jurnal: http://pamomong.iainsalatiga.ac.id



Counselor's Role in Managing Learning Loss in The Post-Pandemic Period

Tiara Wulandari¹, Amirah Diniaty¹, Amalia Madihie²

¹ Universitas Islam Negeri Sultan Syarif Kasim Riau, Indonesia

² Universiti Malaysia Serawak, Malaysia

| Article Information | ABSTRACT |
|--|---|
| Article History: Received 1 September 2022 Revised 22 October 2022 Accepted 14 November 2022 Correspondence Author: Amirah Diniaty, Email: amirah.diniaty@uin- suska.ac.id DOI: 10.18326/pamomong.v3i2.99-109 | This study aims to depict the counselors' understanding of senior high school students' learning loss and their role in handling student learning loss. Applying descriptive qualitative study, this study involves four counselors, two homeroom teachers, and six students experiencing learning loss. The data were collected through interviews and analyzed descriptively. The study found that the counselors understood that the students experienced learning loss, indicated by decrease in their academic achievement, was caused by their lack of autonomous learning, internet connection issues, and lack of learning motivation. To address this issue, counselors attempted to motivate their students, invited them |
| | to an individual counseling session, and collaborated with homeroom teachers. |
| | Keyword: Role; counselor; learning loss; post-pandemic |
| | ABSTRAK |
| | Tujuan penelitian ini adalah untuk mengetahui pemahaman konselor terhadap <i>learning loss</i> siswa di Sekolah Menengah Atas (SMA) dan peran sertanya dalam penanganan <i>learning loss</i> . Jenis penelitian ini adalah deskriptif kualitatif. Informan utama terdiri dari 4 konselor dan 6 siswa yang mengalami <i>learning loss</i> , sedangkan informan pendukung terdiri dari 2 orang wali kelas. Teknik pengumpulan data dalam penelitian ini adalah wawancara. Analisis data dari hasil penelitian ini dilakukan dengan analisis deskriptif. Hasil penelitian menunjukkan bahwa 1) <i>learning loss</i> disebabkan siswa belum terbiasa belajar secara mandiri, terkendala jaringan, dan menurunnya motivasi belajar siswa; dan 2) Usaha yang dilakukan konselor untuk mengatasi <i>learning loss</i> , diantaranya memotivasi siswa lebih semangat dan giat dalam belajar, melakukan konseling individu, dan berkolaborasi dengan wali kelas. Kata kunci Peran; konselor; kehilangan belajar; pasca-pandemi |

INTRODUCTION

Learning loss is when a student loses information and abilities either partially or as a whole or suffers academically due to prolonged gaps or poor educational procedures (Cerelia et al., 2021). The term learning loss seizes attention after an evaluation of the

implementation of distance learning by the government to break the chain of COVID-19 transmission (Pratiwi, 2021). Several factors are reported to be responsible for ineffective distance learning, including internet connection/network, limited online learning support tools, and limited teacher and student abilities (Lubis, 2020; Haryadi & Selviani, 2021). When improperly addressed, these conditions will potentially result in a learning loss.

The risk of learning loss has been projected to occur since the start of school closures worldwide due to the Covid-19 pandemic. Hares and Mundy (2020) have predicted that around 91.3 percent or 1.57 billion students will drop out of school worldwide due to the Covid-19 pandemic. Confirming this projection, Pratiwi (2021) shows that covid-19, which lasted for almost a year and a half, was proven to yield a range of problems. Students lacked learning motivation due to poor guidance from teachers and parents. Students' learning seems to increase when they perceive teachers' attention during classroom hours. Meanwhile, as their parents are busy with their own activities, students' learning activities appear to be left unattended. Further, the lack of encouragement and supervision from teachers and parents, in addition to the lack of evaluation and practice questions, are found to contribute to children's poor skills and understanding.

According to a McKinsey survey conducted in 8 Chinese OECD (Organization for Economic Cooperation and Development) member countries on the effectiveness of education during the pandemic, there has been a significant learning loss (Chen et al., 2021). As a result, many students have lost general and specific knowledge and skills, and the academic process of the student generation has decreased during the pandemic (Andriani et al., 2021). Indonesia also experiences the same conditions. Secretary General of the Federation of Indonesian Teachers' Unions (FSGI), Heru Purnomo, stated that learning loss occurs due to suboptimal learning process, coupled with the implementation of the Covid-19 emergency curriculum. Learning loss is also defined as a condition of loss of basic competencies that students must learn due to the implementation of an emergency curriculum, for example, only two of the three subjects of the curriculum that students must master (Budi, et al., 2021).

The Ministry of Education and Culture's assessment of 18,370 students in 612 schools in eight provinces from April to May 2021 revealed a significant difference in learning outcomes between the 2013 curriculum and the emergency curriculum. Students' numeracy is expected to reach a score of 522 should the pandemic never happen. However, the pandemic and emergency curriculum implementation resulted in a numeracy score of 517, whereas those taught with the 2013 curriculum exhibited a numeracy score of 482 (Kemendikbudristek, 2022). The disparity in literacy and numeracy results between the 2013 and emergency curricula was estimated to be four months late. Thus, regardless of socioeconomic background, students with the emergency curriculum did not achieve learning outcomes as superior as those with the full 2013 curriculum.

The Ministry of Education and Culture, Research and Technology of the Republic of Indonesia provides assistance to help students and teachers learn during the pandemic to respond to this learning loss phenomenon, starting from free internet quota for teachers and students, single tuition fee assistance for students, wage subsidies for non-civil servant teachers, distribution of learning modules, learning from home programs, emergency curriculum, and development of digital education platforms (Nugraha et al., 2021). Studying the advantages and limitations students encounter when learning online is necessary, as such a study may provide a basis for media selection for online learning (Nurkholis, 2022).

COVID-induced learning loss has sparked heated debates among stakeholders in education and concerned educators on how to understand reports of learning loss, methods to measure it, and strategies to recover from learning loss (Zhang & Storey, 2022). Although the full impact of learning loss is yet to be seen, teachers and students have already felt it, as indicated by low motivation and decreased learning achievement during online learning. Students find it difficult to absorb and understand learning materials during online learning. Most students refuse to complete online projects teachers give because they do not understand the materials (Zhang & Storey, 2022). In addition, it turns out that learning loss can also reduce students' numeracy levels. This is in line with the research of Widodo and Umar (2022), who found that out of 110 students surveyed, there was at least a decrease in the ability of 87% in division, 48% in multiplication, 38% in subtraction, and 17% in addition.

The adverse impact of learning loss was also found in one of the public high schools in the city of Pekanbaru. The researcher conducted interviews with one of the school counselors at this school and found that students were late in submitting assignments given by the teacher. Assignments made by students often failed to meet the teachers' expectations. The school counselor said the student confessed that they played online games during the online class hours. Their understanding of the subject was reduced. Homeroom teachers reported a decrease in student achievement, there were at least two students out of 30 people in each class. Some students exhibit declined achievement when compared to their achievement in junior high school. Some students who ranked as top ten in their junior high school level were not in top ten in senior high school level, some of them even exhibit below- classroom average achievements.

Many teachers find that some students were impolite when communicating online with teachers and some students need to change their habit of doing non-learning activities during online class hours. This situation disrupts and complicates students' online learning process (Prabowo, et al., 2021). The author is interested in examining the absence of research on the role of instructors in the learning loss phenomenon, especially counselors; how counselors evaluate students' learning loss, and the roles and actions to address this issue.

METHODS

This descriptive qualitative study captured counselors' views on learning loss and their responses to this issue in a public high school in Pekanbaru City. The qualitative technique was selected by considering that data collected in the field were facts that require in-depth examination, especially with the researcher himself as the main instrument in data collection (Sugiyono, 2014). The data were collected through interviews with four counselors and six students deemed to experience learning loss by the counselors. Students were identified based on their decreased learning scores during the pandemic (even and odd semesters of 2021, compared to odd and even semesters of 2020). Student informants were recruited based on school counselors' observation and service data. The six students indicated loss of learning ability, decreased learning achievement and learning motivation, increased learning gaps, and the possibility of dropping out of school. The researcher analyzed the data collected through three stages: Data reduction, data presentation, and conclusion drawing (Miles et al., 2014). During the data reduction stage, data were summarized, selected for important information, and looked for themes and patterns. The reduced data provided a clearer picture of the phenomena. After that, the data were presented in tabulated forms to make them easier to understand. Finally, conclusions were drawn to obtain valid information.

RESULTS AND DISCUSSION

Counselor's Understanding of Student Learning Loss

The counselor stated that student learning loss is a decline in academic grades due to various factors (school and home environment factors, ineffective distance learning, and social media). Four counselors stated similar opinions during the interviews:

"Many variables contribute to declining student academic performance, including the school environment and family environment." (Counselor 1).

"Online learning settings are responsible for students' lower achievement, many students do not understand the materials and need time to adjust but because of the online presence, many students abuse it, for example, neglecting obligations, accessing other social media while studying directly, and so on." (Counselor 2). "The loss of student learning achievement caused by environmental elements and the school environment, as well as the change from offline learning to online learning, so that many students are not accustomed to learning independently" (Counselor 3). "Academic decline in student learning ability that occurs due to longer breaks or poor learning processes, for example, with the current situation, even though we are offline, classroom learning is not fully effective." (Counselor 4).

Referring to the results of the interviews, it was found that things that affect learning loss include: 1) student factors; 2) parental factors; and 3) supporting device factors. The findings from the interviews are in line with the research results of Andriani et al. (2021), which states that the psychological aspects of students can affect the decline in academic performance. This is because students feel bored and fed up with online learning activities. Online learning activities significantly differs from classroom settings. They had not been used to learn autonomously, as they prefer classroom learning atmosphere with friends and teachers (Cahyani et al., 2020). Learning loss is the result of sudden change, and those suffering from learning loss are generally people unprepared for change (Ulfah, et al., 2022), and this can bear a long-term negative impact on their learning (Arifudin, et al., 2022).

The Ministry of Education, Culture, Research and Technology states almost identically that Learning loss is defined as the loss of learning opportunities due to the lack of interaction between teachers and students during the learning process, resulting in a decrease in students' competencies (Syamsiyah, 2020). Much has happened to date, and students who will be affected by the closure of the second educational institution in 2020 may take two or three months to recover, with apparently higher losses in reading and arithmetic (Arifudin, 2021). According to Kaffenberger (2021), three months of school disruption can result in up to a year of learning loss for students due to missed classes when schools reopen.

The convenience of online learning also depends on parental support. Research by Novia & Wasehuddin (2021) states that parents' education is aligned with the level of concern for their children regarding their learning time. Parents who have a low level of education and live in rural areas tend to let their children spend disproportionate amount of time playing. This condition is corroborated by the research of Chotimah et al. (2017), which confirms that the ability and socioeconomic conditions of parents have an influence on children's study habits at home. Thus, the role of parents is very important to support and control children's study habits at home so that children become comfortable and enthusiastic about studying at home.

Apart from the personal aspects of students and parents, factors that influence learning loss are online learning support devices. This supports Lubis's research (2020), which reveals that the lack of facilities and infrastructure and unpreparedness for technology education are factors that can trigger learning loss. Sae and Sihorang (2020) found that some teachers still have the limited skills in utilizing IT-based learning media.

The research findings also reveal the counselor's way of finding which students are missing out on learning from homeroom information, absences, assignments, and student attendance, as evidenced by the following interview results:

"I have noticed from many homeroom teacher reports that counselors monitor students' attendance as well as their grades" (Counselor 2).

"Yes, I usually look at student attendance, assignment submission, and lateness to school so that the picket officer reports" (Counselor 3).

"To determine all of this, we consult with subject teachers and homeroom teachers, as well as student attendance, schoolwork, and attitude" (Counselor 4).

These findings are in line with the results of Rejeki (2022), which states that the forms of learning loss included students' indiscipline in participating in learning because they are used to being flexible in time. Students are late for school and do not seem to be serious in doing assignments.

The Counselor's Role in addressing Student Learning Loss

Interview findings on counselors' involvement in addressing students' learning loss reveal their concern for students, as expressed in the following statement:

"We will continue to motivate them, give advice, and so on to students who excel but experience a decline in learning. By guiding students who have learning difficulties as needed, and telling students to be enthusiastic in learning" (Counselor 1).

"I give advice and motivation to students so that they remember their responsibilities as students and are not careless in completing homework" (Counselor 2).

"I give it in the form of motivation to students not to be too comfortable when playing gadgets because online learning is mostly done using cellphones, which has the impact of making them forget the homework given.". I continue to monitor students' grades, especially those in the top ten, as well as their attendance and may wait for reports from homeroom instructors if there is no progress from students" (Counselor 3).

"I present information in the form of learning motivation so that students understand their responsibilities as students, and then we will educate them about the impact of missing learning so that they realize the consequences of not completing a lesson. I assist, facilitate, and provide solutions to students, and we as counseling guidance instructors must interact and cooperate with homerooms and topic teachers to motivate students. Furthermore, I update the paradigm of service delivery to be more fun so that they are not bored when listening to the material presented" (Counselor 4).

Interviews with homeroom teachers revealed that counselors have done their job of conducting guidance and counseling services for students with learning loss by working together. This is as expressed by the homeroom teacher research informant as follows:

"The counselor is very active, especially if the student is in direct contact with the teacher, and then the homeroom teacher reports to the counselor for help to deal with the student's difficulties" (Homeroom Teacher 1)

"as a homeroom teacher, I am involved in handling learning loss in collaboration with the counselor" (Homeroom Teacher 2).

Interviews with students were conducted to cross check the data, and the results revealed that the counselor had provided advice, motivation, and solutions to them through individual counseling services. The following is an excerpt of the student's expression:

"I was called by the counselor and given advice and was motivated to study harder (Student 1, Student 2, Student 3, Student 6).

"I was called by the counselor and underwent individual counseling to be more open." "I got solutions to my problems and motivation to study after doing individual therapy." (Students 4 and 5).

The role of counselors in providing motivation when learning loss occurs is highly expected, as such psychological assistance is expected to trigger students' learning enthusiasm and motivation. This is in line with research conducted by Makaria et al. (2022), who state that the role of counselors in providing video-based group guidance assistance services can increase students' enthusiasm for learning. Yuwanita (2016) asserts that video has advantages over other media it is a combination of audio and visual aspects. This interesting combination is proven to attract students' enthusiasm to learn.

Apart from the efforts of Guidance and Counseling, collaborative steps are also needed from the counselor with the teacher/classroom supervisor. Hastini, et al. (2020) emphasized the collaboration and creativity of educators/teachers as the frontline in minimizing learning loss, which is very important, namely: a) diverse learning design according to learners' abilities, talents, and interests (Based on Student Needs); b) adopting appropriate methods so that students are inspired to actively participate in distance learning; c) using other approaches if some students have limited online communication; d) coordination and communication between teachers and parents; and e) learning platforms that combine synchronous or asynchronous methods can reduce the loss of teacher time through interactive talk shows or webinars and online classes, helping users spend the right time with innovative games.

Counselors can help children's mindset about their obligations and responsibilities as students by directing them to future goals and desired expectations. Therefore, dealing with students with learning disabilities requires competence, patience and forbearance on the part of the counselor. As they are almost two years old and in a state of suspended animation for face-to-face learning at school, this is a state that will take time to normalize (Firna, et al., 2020; Yadi, 2015).

Furthermore, home visits are important for counselors to detect the student's family situation regarding child or adult problems that the counselor is responsible for in counseling services (Firna, et al., 2020). Various information or data will be collected through

supporting activities that can be used to improve the effectiveness of counseling services and increase the participation of parents or other family members in meeting the needs of troubled individuals.

CONCLUSIONS

The results of the study found that the counselor's view of student learning loss is a condition where students' learning achievement decreases due to online learning. The counselor's role in student learning loss is to guide and motivate students to be more enthusiastic and active in learning even though learning is done online. They collaborate with teachers and subject teachers to motivate students and visit students' homes to get information about their problems. The concrete form of handling guidance and counseling of students missing learning by counselors is by providing classical guidance services regarding learning motivation, student ethics, and habits, good manners, or other materials that can increase student motivation and manners. In addition, individual counseling and group counseling services are also provided for students who experience Learning Lost in order to experience better learning motivation.

REFERENCES

- Andriani, W., Subandowo, M., Karyono, H., & Gunawan, W. (2021). Learning Loss dalam Pembelajaran Daring di Masa Pandemi Corona. Seminar Nasional Teknologi Pembelajaran, 1(1), 484–501.
- Arifudin, O. (2022). Optimalisasi Kegiatan Ekstrakurikuler dalam Membina Karakter Peserta Didik. JIIP: Jurnal Ilmiah Ilmu Pendidikan, 5(3), 829-837. DOI: 10.54371/jiip.v5i3.492.
- Arifudin, O., Mayasari, A., & Ulfah, U. (2021). Implementasi Balanced Scorecard dalam Mewujudkan Pendidikan Tinggi World Class. Edumaspul: Jurnal Pendidikan, 5(2), 767-775. DOI: 10.33487/edumaspul.v5i2.2333.
- Budi, S., Utami, I.G., Jannah, R.N., Wulandari, N.L., Ani, N.A., & Saputri, W. (2021). Deteksi Potensi Leaning Loss pada Siswa Berkebutuhan Khusus selama Pembelajaran Daring Masa Pandemi Covid-19 di Sekolah Inklusif. Jurnal Basicedu: Journal of Elementary Education, 5(5), 3607-3613.
- Cahyani, A., Listiana, I. D., & Larasati, S. P. D. (2020). Motivasi Belajar Siswa SMA pada Pembelajaran Daring di Masa Pandemi Covid-19. *IQ (Ilmu Al-Qur'an): Jurnal Pendidikan Islam*, 3(1), 123–140. DOI: 10.37542/iq.v3i01.57.
- Cerelia, J. J., Sitepu, A. A., N, F. A. L., Pratiwi, I. R., Almadevi, M., Farras, M. N., Azzahra, T. S., & Toharudin, T. (2021). *Learning Loss* Akibat Pembelajaran Jarak Jauh selama Pandemi Covid-19 di Indonesia. *E-Prosiding Nasional Departemen Statistika FMIPA Universitas Padjadjaran*, 10(1), 27–27.

- Chen, L., Dorn, E., Sarakatsannis, J., & Wiesinger, A. (2021). *Teacher Survey: Learning Loss is Global and Significant*. Retrieved August 25, 2022, from Mckinsey website: https://www.mckinsey.com/ industries/ education/our-insights/teacher-survey-learning-loss-is-global-and-significant.
- Chotimah, L.N., Ani, H.M., & Widodo, J. (2017). Pengaruh Status Sosial Ekonomi Orangtua terhadap Prestasi Belajar Siswa (Studi Kasus Siswa Kelas VIII SMP Negeri 1 Jember Tahun Ajaran 2016/2017). Jurnal Pendidikan Ekonomi: Jurnal Ilmiah Ilmu Pendidikan, Ilmu Ekonomi, dan Ilmu Sosial, 11(1), 75-80.
- Firna, Aprianti, A., Maulina, R., Safitri, W., & Zaini, M. (2020). Peran Guru Bimbingan Konseling selama Pembelajaran Daring di SMA Bangka. *IjoCE: Indonesian Journal* of Counseling and Education, 2(1), 67-71. DOI: 10.32923/ijoce.v2i2.1978.
- Hares, S., & Mundy, K. (2020). Equity-Focused Approaches to Learning Loss during Covid-19. Retrieved August 25, 2022, from The Education and Development Forum (UKFIET) website: https://www.ukfiet.org/2020/equity-focused-approaches-tolearning-loss-duringcovid-19/.
- Haryadi, R., & Selviani, F. (2021). Problematika Pembelajaran Daring di Masa Pandemi Covid-19. *AoEJ: Academy of Education Journal*, *12*(2), 254–261.
- Hastini, L., Fahmi, R., & Lukito, H. (2020). Apakah Pembelajaran Menggunakan Teknologi dapat Meningkatkan Literasi Manusia pada Generasi Z di Indonesia?. Jurnal Manajemen Informatika (JAMIKA), 10(1), 12-28. DOI: 10.34010/jamika.v10i1.2678.
- Kaffenberger, M. (2021). Memodelkan Dampak Pembelajaran Jangka Panjang dari Guncangan Pembelajaran Covid-19: Tindakan untuk (lebih dari) Mengurangi Kerugian. Jurnal Internasional Pengembangan Pendidikan, 2(7), 1-8.
- Kemendikbudristek. (2022). Kajian Akademik: Kurikulum untuk Pemulihan Pembelajaran. Jakarta: Kemendikbudristek.
- Lubis, W. (2020). Analisis Efektivitas Belajar pada Pembelajaran Jarak Jauh (PJJ) di Masa Pandemi Covid-19. *Bahastra: Jurnal Pendidikan Bahasa Dan Sastra Indonesia*, 5(1), 132–141.
- Makaria, E.C., Rachmayanie, R., Janah, R. (2022). Pendampingan Bimbingan Kelompok Siswa SMPN 1 Kapuas Barat Untuk Mengatasi Learning Loss. Wikrama Parahita: Jurnal Pengabdian masyarakat, 6(2), 185-191. DOI: 10.30656/jpmwp.v6i2.4323
- Miles, M.B, Huberman, A.M, & Saldana, J. (2014). *Qualitative Data Analysis, A Methods Sourcebook, Edition 3*. USA: Sage Publications.
- Novia, W., & Wasehudin, W. (2021). Dampak Pandemi Covid terhadap Pembelajaran Daring Mata Pelajaran PAI. *TARBAWY: Indonesian Journal of Islamic Education*, 8(1), 23–37. DOI: 10.17509/t.v8i1.28551.
- Nugraha, D. C. A., Priharsari, D., Aknuranda, I., Liliana, D. Y., Fiaji, N. A., Hanggara, B. T., Putra, M. G. L., Hendini, I. P., Rahayuda, I. G. S., & Zulvarina, P. (2021). Bantuan Kuota Internet untuk Pendidikan dari Pemerintah Indonesia: Sejauh Apa Manfaatnya?. Jurnal Sistem Informasi, Teknologi Informasi, Dan Edukasi Sistem Informasi, 1(2), 70-80. DOI: 10.25126/justsi.v1i2.36.
- Nurkholis, I. (2022). Analisis Kelebihan dan Kekurangan dalam Pembelajaran Daring di SDN Pesanggrahan 01 Kota Batu Malang. *PTK: Jurnal Tindakan Kelas*, 2(2), 143-148. DOI: 10.53624/ptk.v2i2.45.
- Prabowo, E., Fajrie, N., & Setiawan, D. (2021). Etika Komunikasi Siswa dalam Pembelajaran Daring melalui Aplikasi Whatssapp. *Jurnal Penelitian dan Pengembangan Pendidikan*, 5(3), 429-237.

- Pratiwi, W.D. (2021). Dinamika Learning Loss: Guru dan Orang Tua. Jurnal Edukasi Nonformal, 2(1), 147-153.
- Rejeki, N. (2022). Analisis Learning Loss dan Strategi Recovery Pasca Pembelajaran Jarak Jauh. *Nusantara: Jurnal Oendidikan Indonesia*, 2(3), 407-422.
- Sae, D. & H. Sihorang. (2020). Analisis Hambatan Guru MIPA dalam Pembelajaran Daring di SMAS Kr. Rantepao Di Masa Pandemi COVID 19. *EduMatSains*, 1(1), 1–12. DOI: 10.33541/edumatsains.v1i1.2448.
- Sugiyono. (2014). Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta.
- Syamsiyah, N. (2020). Pembelajaran Daring masa Pandemi Corona (Kegiatan Belajar di Rumah dalam Kelompok Kelas 4 MI As-Salam). *Ibtida': Media Komunikasi Hasil Penelitian Pendidikan Guru Madrasah Ibtidaiyah*, 1(2), 115-124.
- Ulfah, U., Supriani, Y., & Arifudin, O. (2022). Kepemimpinan Pendidikan di Era Disrupsi. *JIIP-Jurnal Ilmiah Ilmu Pendidikan*, 5(1), 153-161. DOI: 10.54371/jiip.v5i1.392.
- Widodo, A. & Umar. (2022). Apakah *Learning Loss* Berpengaruh terhadap Kemampuan Nurmerasi Siswa?. *JS (Jurnal Sekolah)*, 6(2),1-6. DOI: 10.24114/js.v6i2.33371.
- Yadi, R. (2015). Peranan Guru Bimbingan dan Konseling dalam Menangani Peserta Didik. Jurnal Mahasiswa Bimbingan dan Konseling, 1(1), 104-117. DOI: 10.31602/jmbkan.v1i3.579.
- Yuwanita, E. (2016). Keefektifan Penggunaan Media Video Pembelajaran untuk Meningkatkan Hasil Belajar Siswa pada Mata Pelajaran Dasar Teknologi Menjahit di SMK Negeri 3 Pacitan. (Unpublished thesis) Universitas Negeri Semarang, Semarang, Indonesia.
- Zhang, Q & Storey, N. (2022). Controversies Behind COVID Learning Loss: Historical Issues, Current Measurements, and Future Strategies. *Theory Into Practice*, 61(3), 300-311, DOI: 10.1080/00405841.2022.2096380.