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Teachers' role in online learning: Perspectives of prospective Indonesian EFL teachers

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Abstract

This study investigated how prospective English as a foreign language teachers perceived the role of their teachers in online learning and how those roles contributed to their experiences in a low-tech online learning context. This study surveyed 285 prospective teachers at seven universities across provinces with English Language Education programs in Indonesia (East Java, North Sumatera, Central Sulawesi, West Kalimantan, West Papua, East Nusa Tenggara and Bali) and interviewed 10 prospective teachers to provide a deeper understanding of their experiences. The results showed that the cognitive role is the most important teacher role perceived by prospective teachers in a low-tech online learning context. Three themes emerged from the results: the teacher's cognitive sub-roles in providing learning assistance and recommendation, managerial sub-roles in leading, controlling and organizing the learning process and affective sub-roles in creating an enjoyable, relaxing learning environment and catching students' attention in online learning. The discussion focuses on the different effects of the roles on creating a positive online learning environment for students. In conclusion, teaching skills related to the three roles of teachers in online learning must be taught explicitly in a teacher-training program through scenario-based learning activities. The implications of teacher-training programs are discussed further in this paper.

Keywords: Low-tech learning context, Online instruction, Online learning environment, Pedagogical roles, Scenario-based learning activities, Teacher's roles.

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Contents

Contribution of this paper to the literature
This study contributes to the existing literature on the roles of teachers in a low-tech learning environment based on the perspectives of prospective EFL teachers and its implication for the teacher training program.

1. Introduction

Online learning has become important in education nowadays with the spread of the COVID-19 pandemic and the innovation of digital technology. Researchers have studied online learning from various perspectives including the implementation of teaching methods and techniques in the online learning process, students' preferences for digital tools in online learning and the effectiveness of online learning on students' language learning. Teacher roles are one of the areas of study in this field. Previous studies focused on generating a theoretical framework on teacher's roles and learner autonomy and measuring their roles in the online learning process (Ammenwerth, 2017; Bajrami, 2015; Han, 2014; Herbert et al., 2022; Huang, 2017; Huang, 2018, 2019; Huang, 2021; Sadeghi & Sahragard, 2016; Sakai, Chu, Takagi, & Lee, 2008; Sason, Wasserman, Safrai, & Romi, 2022; Wang, Stein, & Shen, 2021).

A "study from home policy" has been implemented in the English as a Foreign Language (EFL) programme in Indonesia since March 2020 due to the COVID-19 pandemic. Higher education institutions in Indonesia interpreted this policy as a perfect opportunity to innovate online learning. Various digital tools, platforms and learning management system (LMS) platforms facilitate all the processes including communication or interaction between faculty, lecturers and students (Irianti & Putra, 2021; Satyawan, Wahjoedi, & Swadesi, 2021; Tungka & Tarinje, 2021; Udil, 2020). Assignments, feedback and a discussion forum are also available online.

Teacher roles have been viewed as one of the main factors needed to create a positive and conducive online learning environment for students, yet at the same time, they are also informed by the learning context. Huang performed a quantitative study to compare the roles of teachers in the context of face-to-face classroom instruction and online learning in China. In face-to-face learning, instruction is given in-person while in online learning, the materials, instruction and interaction are provided virtually. The results of the study reveal that teacher roles in face-to-face and online learning are perceived differently. The teacher's cognitive role is the most influential for the students who learn in face-to-face learning while the teacher's managerial role is the most impactful role in online learning (Huang, 2019). Another study conducted in China also agrees that the teacher's cognitive role is the most important role for the students in an online learning context (Wang et al., 2021). Meanwhile, still in China, the teacher's managerial role emerges as the most impactful role for students in a blended learning context (Huang, 2018). In Indonesia, very few studies focus on teacher roles in an online learning context. A recent study shows the teacher's cognitive role is the most important role for the students in a blended learning context in Indonesia (Anggawirya, Prihandoko, & Rahman, 2021). Since research exploring teachers' roles in an online learning context in Indonesia is rare. The present study was carried out to investigate teachers' roles in an online learning context from the students' perspectives.

2. Literature Review

2.1. Low-Tech Online Learning Environment

According to studies on this topic, a low-tech online learning environment has the following characteristics:

1. *Material format and delivery*: teaching materials are mostly in the form of PowerPoint presentations and print-ready Portable Document Format (PDF) files while materials in the form of electronic publications (EPUB files) or digital PDFs are still rare. Teachers use videos and short clips to reinforce their material. Furthermore, teachers combine social messaging, LMSs such as Moodle and Neo and social media apps such as WhatsApp, Telegram or Facebook to deliver the materials (Campana & Agarwal, 2019; Nicol, Owens, le Coze, MacIntyre, & Eastwood, 2018; Tungka & Tarinje, 2021).
2. *Seating set-up*: classroom settings are tiered or stadium-style halls, chairs and desks are bolted to floors making it almost impossible to rotate, the classroom is overcrowded or it has a dense seating capacity (Soneral & Wyse, 2017).
3. *Classroom facilities*: the classroom is not equipped with screens or designated flat-screen TVs and computer monitors with microphones for students to display their work are not available. There is no writable wall and student access to technology facilities in the classroom is limited or there is no access at all (Soneral & Wyse, 2017).
4. *Student activities*: student activities in a low-tech online learning environment are mostly student-directed learning activities, tutoring activities and group discussion. Instruction for these activities is hands-on and delivered through gadgets or LMSs. Gadgets are used by teachers for instruction or assistance, collaborative work using technology such as using Google Docs collaboratively rather than working together from a computer or laptop is uncommon (Nicol et al., 2018; Tungka & Tarinje, 2021).
5. *Assessment*. Paper-based or print-ready PDF based tests and quizzes are still a preferable technique to assess students' learning progress (Campana & Agarwal, 2019).

In this study, a low-tech online learning environment is defined as "a learning setting where teachers use social media, social messaging and LMSs to anticipate limited technology in the classroom and internet access of their students". Furthermore, this term also refers to the activities where students access online resources, do online exercises and interact with their teachers online either on campus or off campus.

2.2. Teacher Roles

Previous studies have dissected specific tasks of teachers and conceptualized them into roles of teachers in a traditional learning context (Eka, 2013; Sakai et al., 2008) and in an online learning context (Anggawirya et al., 2021; Coppola, Hiltz, & Rotter, 2002; Huang, 2017; Huang, 2018, 2019; Huang, 2021; Husin, Ismail, Ali, & Rauf, 2022; Lalduhawma, Thangmawia, & Hussain, 2022). Teachers are expected to have the following roles: leader or coach (Eka, 2013; Ideland, 2021), tutor (Eka, 2013; Martin, 2022), manager (Anggawirya et al., 2021; Eka, 2013;

Huang, 2017; Huang, 2018, 2019; Huang, 2021; Sakai et al., 2008; Yengin, Karahoca, Karahoca, & Yücel, 2010) and counselor (Eka, 2013). To make teacher roles more tangible, Huang develops a STRI (Scale of Teacher Role Inventory) to measure teacher roles based on learners' perceptions. Developed under the theoretical framework of teacher roles in an asynchronous learning network (Coppola et al., 2002), the scale reveals three distinctive roles of teachers that appear across different instructional contexts: the cognitive role, the managerial role and the affective role.

STRI is used in this study to measure teacher roles in a low-tech online learning environment in Indonesia. STRI is selected since the role of teachers measured on this scale also comprises specific characteristics that have already been conceptualized by previous research. The cognitive role refers to a teacher's cognitive or mental processes of learning, storing information and thinking regarding their teaching activities. Some of the sub-roles include their abilities to design instructional activities and develop new learning scenarios such as recommending useful English websites or web pages to students, providing assistance and feedback to them (Huang, 2017; Huang, 2018; Yengin et al., 2010) and encouraging active learning (Huang, 2017; Huang, 2018; Yengin et al., 2010). The affective role refers to a teacher's abilities and efforts to express their emotions, maintain relationships with their students, colleagues and faculty staff, preserve a conducive and positive learning atmosphere and promote student autonomy (Huang, 2017; Sakai et al., 2008). The managerial role refers to teachers' efforts to manage their classroom, monitor their activities, make sure students practice their teamwork skills (Eka, 2013; Huang, 2017) and decide which learning tools are appropriate for students (Huang, 2017; Yengin et al., 2010).

3. Method

3.1. Participants and Context

This study is part of a two-year national research project on prospective Indonesian EFL teachers' pedagogical skills in an asynchronous online learning context. The project included online interviews and a survey with prospective EFL teachers from seven universities across provinces in Indonesia (East Java, North Sumatera, Central Sulawesi, West Kalimantan, West Papua, East Nusa Tenggara and Bali). All seven universities adopt online learning context for English Language Education majors. This study involved 285 prospective Indonesian EFL teachers majoring in English Language Education, the majority of whom were female (79.30%) between the ages of 17 and 30 with 19 years old constituting the predominant age (36%) and had either a smartphone or laptop for their online learning (n=285, 100%).

3.2. Data Collection and Analysis

The STRI was in the form of Google forms and was distributed online to the participants. After getting the reliability score of the questionnaire, the researchers employed statistical procedures to present the data descriptively. Following the survey, 10 prospective teachers were later selected and invited to zoom meetings for interviews to gain a deeper understanding of their preferences for teacher's roles. The interviews lasted between 30 to 60 minutes. During the interviews, the researchers advised participants to recall their experiences during online learning. After that, the researcher transcribed the results of the in-depth interview verbatim, read the data thoroughly and coded them, categorized all the data into themes and cross-checked the themes with the theoretical framework and questionnaire results (Richards, 2003). The themes were derived from the items that received negative preferences from the respondents in order to get comprehensive results on the teacher roles in online learning.

4. Findings

This section presents the findings of the survey (Tables 1, 2, 3 and 4) and the summary of the interviews (Table 5). The reliability test showed that the Cronbach alpha value for this 27-item questionnaire was .923 indicating that this scale is a reliable instrument (George & Mallery, 2003; Gliem & Gliem, 2003).

Table 1. Mean score of teacher roles.

Dimension	Min	Max	M	SD
Cognitive role	1.00	5.00	4.20	0.65
Managerial role	1.00	5.00	4.15	0.69
Affective role	1.00	5.00	4.08	0.72

Table 1 shows that the cognitive role has the highest mean of the other roles. The second most important role is the managerial role while the affective role comes last. Students' preferences for the roles of teachers in online learning are displayed in Tables 2, 3 and 4 respectively. To give a better understanding of the preferences, each table provides information on the mean scores for positive, neutral and negative preferences (Sullivan & Artino Jr, 2013; Wiboolsri, 2008).

Based on the results shown in Table 1, the cognitive role dimension received the highest mean score of all dimensions and all items in this dimension received a mean score higher than 4 indicating that all students perceived the cognitive role as the most important role of the teacher in online learning.

As shown in Table 2, students perceived the teacher's explanation of the learning materials (item 4) as the highest sub-role of the cognitive role. This means that although in an online learning context, students still expected teachers to provide adequate explanations of the materials to set their learning focus. As for their independent learning, students preferred teachers who recommended English websites or web pages and used video as a teaching medium. Furthermore, students perceived the teacher's role in using audio in online learning (item 2) as the least important sub-role.

All items in the managerial role dimension also received a mean score higher than 3.5 indicating that all students perceived the managerial role as the second most important role of the teacher in online learning as shown in Table 3. Almost all students showed positive preferences for teachers' managerial roles such as preparing

the teaching set (item 22) and learning plan for students (item 21). However, two sub-roles perceived negatively by the students were controlling learning pace (item 23) and keeping a record of students' exercises (26 items).

Table 2. Students' preferences on the cognitive role.

Statements	Mean	SD	Positive (%)	Neutral (%)	Negative (%)
1. The teacher uses videos to help students learn English.	4.25	0.57	95.09	4.56	0.35
2. The teacher uses audio to help students learn English.	4.00	0.69	84.56	11.93	3.51
3. The teacher recommends English websites or web pages to students to learn English.	4.33	0.68	93.33	4.56	2.11
4. With the teachers' explanation, the focus of the learning materials becomes clear.	4.35	0.66	91.23	8.42	0.35
5. The teacher helps students overcome misunderstandings.	4.10	0.57	91.23	7.02	1.75
6. The teacher helps students analyze the learning content.	4.19	0.67	88.42	10.53	1.05
7. The teacher makes comments on students' work.	4.23	0.64	91.93	7.02	1.05
8. The teacher gives advice on doing exercises.	4.20	0.67	89.82	8.42	1.75
9. The teacher helps students correct their mistakes.	4.15	0.65	87.37	10.88	1.75
10. The teacher shows students the right direction for doing activities.	4.10	0.57	91.23	7.02	1.75

Table 3. Students' preferences on the managerial role.

Statements	Mean	SD	Positive (%)	Neutral (%)	Negative (%)
21. The teacher makes a learning plan for students.	4.29	0.61	94.04	5.26	0.70
22. The teacher makes the teaching schedule in class.	4.34	0.60	96.49	2.46	1.05
23. The teacher controls the learning pace.	3.97	0.82	82.11	9.82	8.07
24. The teacher disciplines the class.	4.19	0.76	85.96	10.88	3.16
25. The teacher sets up rules and regulations for doing activities.	4.24	0.62	92.63	6.67	0.70
26. The teacher keeps a record of students' exercises.	3.88	0.76	71.58	25.96	2.46
27. The teacher adapts the exercises to meet students' needs.	4.14	0.63	89.47	9.47	1.05

Table 4. Students' preferences on the affective role.

Statements	Mean	SD	Positive (%)	Neutral (%)	Negative (%)
11. The teacher leads students to play games to learn English.	3.73	0.92	65.61	24.56	9.82
12. The teacher encourages students to express their feelings in English.	4.28	0.64	91.93	7.37	0.70
13. The teacher encourages students to exchange ideas in English.	4.25	0.64	90.88	8.77	0.35
14. The teacher brings students closer to each other.	4.32	0.65	92.63	6.67	0.70
15. The teacher helps students stay focused.	4.21	0.65	89.82	9.47	0.70
16. The teacher encourages students to explore answers on their own.	4.10	0.63	88.07	10.88	1.05
17. I feel confident because of the teacher while learning English.	4.14	0.67	86.67	12.28	1.05
18. The teacher makes English learning interesting to me.	4.18	0.67	90.18	8.77	1.05
19. The teacher makes learning English stressful for me.	3.53	0.98	55.44	29.82	14.74
20. The teacher brings up different issues for discussion.	4.04	0.73	84.21	12.98	2.81

Table 4 presents the results of students' preferences on the affective role with the lowest mean score or the least important role of the teacher in online learning. As for item 19, which is the opposite of item 18 scored reversely. The highest sub-role of the teacher's affective role was the teacher's efforts to bring students closer to each other (item 19) followed by the teacher's efforts to encourage students to speak English (item 11). Furthermore, items 19 and 11 have the lowest mean scores indicating neutral to negative preferences (<55%). Item 19 was the sub-role with the highest neutral response (29.82%) indicating that students could experience this sub-role differently. Regarding this item, only half of them (55.44%) agreed that teachers already put their best efforts in creating a less stressful learning environment for their students.

The purpose of the interview was to delve into students' experiences with teacher' roles in their online learning practices more specifically on the sub-roles that were perceived as neutral to negative. Table 5 displays the summary of in-depth interview results on the roles of teachers.

Table 5 displays the interview summary for the sub-roles of cognitive, managerial and affective which were perceived as neutral to negative by the students. Firstly, two themes emerged from interviewing students regarding their perceptions of a teacher's cognitive roles: *providing assistance* and *providing recommendations*. There were five sub-roles that were perceived negatively by the students (items 2, 3, 5, 8, and 9). Apparently, students perceived the teacher's assistance with all levels of tasks as unnecessary and so did the teacher's recommendation on the supporting materials and apps since it could lead to a similarity issue in writing their tasks.

Secondly, three sub-roles in the managerial role dimension (items 23, 24 and 26) received students' negative preferences. The summary is categorized into two themes: *leading and controlling* and *organizing*. Students perceive teachers' managerial actions such as leading the classroom pace, controlling the learning process and organizing all activities negatively unless those actions are negotiated first with the students to avoid feeling uneasy and uncomfortable. In addition to that, two other sub-roles perceived negatively by the students were controlling learning pace (item 23) and keeping a record of students' exercises (26).

Table 5. Summary of the interview.

Theme	Summary of students' interview
Cognitive role	
Providing assistance (Advice, guidance and feedback) (Items 5, 8 and 9)	• Teacher's advice can help students avoid mistakes, misunderstandings and misperceptions (D, U, & Me), enhance understanding and improve concentration (N & Se), calm the students and reduce anxiety (Dw & Se). • Do not give too much detailed advice on the tasks (D) and only advise students who really need it (Fi). • Sharing tips on choosing apps and advising each other are helpful too (S and Fs). • Feedback, either immediate or delayed and discussion improve students' knowledge (N & Se). • Immediate feedback is more important than delayed feedback (Dw, Fs, Fi, Me, & Se) • Delayed feedback and discussion on the correct answers are helpful in online learning (D, El, U, & S). • Feedback is provided for difficult tasks only (El).
Providing recommendations (Items 2, 3)	• Recommending supporting materials and apps is not really required (D & El), unless they are in the form of a list and are given at the first meeting (Me). • The recommendation of other resources and apps is helpful but discussing the resources and sharing tips to select the most helpful websites is more preferable (U, Dw, Fi, & N). • Too many recommendations can cause confusion and students can end up using the same reference for their assignment (Se & Fs). • Audio and videos must be completed with a transcript or explanation from the teacher (S).
Managerial role	
Leading and controlling (Items 23, 24)	• Teachers must lead the activities and control the learning pace (D, Dw, & Fs). • Discipline is required to make sure the learning process happens (El, Dw, & Se) but must be negotiated with the students first before implementation (Me). • Rules for turning the camera on and deadlines are uncomfortable (U and S). • Freedom to access all materials, more interaction or discussion time and teachers' advice are more important than rules and regulations (Fs, N, Fi, & Se).
Organizing (Item 26)	• Well-organized records reduce students' worries of losing the assignment sent on social messaging apps (D, El, U, Me, & Se) • No need, assignments are already stored on the learning portal (Dw, Fs, & N) and students have copies of them (Fi) • A record of students' scores and the teacher's comments (S) on the printed assignment (Se) is more effective for learning.
Affective role	
Creating an enjoyable and relaxing learning atmosphere (Item 19)	• Efforts to create a supportive learning environment can take the form of providing consultation and discussion time (S and Fi), interactive guidance and assistance with the tasks (El and N) or advice and feedback on the assignments (S, Me, and Se). • Poor internet connection and overlapping deadlines contribute to stressful learning (D, Dw, and Fs). • Need deadline extensions, flexible rules and a group work project to feel more relaxed (U, Fs, and El).
Catching attention (Items 11, 20)	• Discussing different topics is more effective to catch and secure students' attention (Fs, Fi, and Me), but too many new topics make them lose their learning concentration (D). • Games are not significant to secure students' attention because the rules are unfamiliar (U and Dw), confusing and competition is not interesting for some of them (D and S) which makes it hard for them to multitask (El). • Short grammar games or English skills games are more effective to catch attention and stimulate interest but they need demonstration before inviting students to play (N and Se). • Games are more effective if taught as a teaching technique (Me).

Lastly, the results of the interview on the three sub-roles of the teacher's affective role (items 11, 19 and 20) shown in Table 5 are also structured into two themes: *creating an enjoyable and relaxing learning atmosphere* and *catching students' attention*. The students' accounts on the first theme showed that this phenomenon occurred in an online learning situation. Although, the teacher already put efforts into creating an interesting and enjoyable online learning atmosphere, stressful situations occurred due to some factors such as a bad and unstable internet connection, a limited amount of discussion and interaction time, the camera-on policy and tasks with short and overlapping deadlines. The second theme deals with the teacher's role in catching and maintaining students' attention. From the results, students showed indifferent preference on the selection of games in online learning, unless the games are short and effective for their learning improvement. One student even thought about discussing games as a teaching technique and not as media to catch their attention. They preferred too many discussions indifferently since the topics could distract them from the real learning purpose and create confusion in the classroom.

5. Discussion

This study showed that the teacher's cognitive role is the most crucial for the students in a low-tech learning environment. The sub-roles of the cognitive role that received the highest mean score were: *explaining the learning materials*, *recommending useful websites* and *using videos as instructional materials*. This result suggests that students favored the use of technology in their online learning. Videos from various sources, audio, websites, LMS and relevant smartphone apps are technologies that are useful for students in a low-tech learning environment. However, technology could not replace a teacher's presence in students' learning settings since they still expected teachers to explain the learning topics.

Meanwhile, two of the lowest sub-roles of the cognitive role were *directing students in doing activities correctly* and *helping students' correct mistakes*. Although this result is very appropriate for the idea of online learning. It also reveals that a teacher's presence in low-tech online learning is useful since a teacher can provide differentiated instructions and feedback for students with different learning styles, needs and paces. In this study, some students expected immediate feedback and detailed advice for their assignment while others were fine with delayed feedback and demanded more room for improvisation with their assignment. The teacher's presence also had a calming effect on the students and reduced their anxiety about online learning. This interpretation was also proved by the lowest sub-role of the cognitive role *using audio as instructional material*. Teachers can provide a positive learning environment for students by presenting themselves in a self-recorded video explanation to cater to their needs.

The findings of this study show that the cognitive role which is the most important role contradicts the findings of previous studies. The most important role in a low-tech online learning context is the teacher's cognitive role or facilitating role (Wang et al., 2021) while another study highlights the teacher's managerial role as the most important role (Huang, 2019). This disagreement indicates that more research is needed in this area since the findings of this study and previous studies show that the teacher's cognitive role does not always have the same effect in the same learning context.

On the teacher's managerial role, it is revealed that students do not need teachers to set the learning pace but to give them more control in setting their own learning pace. They also do not need teachers to control and organize learning schedules and activities since everything is already available on the learning portal, yet teachers' presence is strongly needed by students to make sure that they are already on the right path, supervise them and lead them back from misconception and misperception. Students' roles revealed that teachers spent too much time leading and controlling the whole class' learning pace. This finding contradicts previous literature which revealed that the teacher's managerial role was the most important in both online learning (Huang, 2019) and blended learning contexts (Huang, 2018) indicating that students in both learning contexts expected teachers to control and monitor their learning pace and progress.

Furthermore, the teacher's affective role in online learning was considered less significant than the other two roles. This is probably because two-way communication is limited or mostly delayed in online learning. Teachers probably refused to spend more time and effort on online communication since they already provided materials, instructions and activities on online learning platforms. This finding contradicts the finding of a previous study (Sason et al., 2022) which shows that the teacher's affective role is the most important role in online learning context, yet it is consistent with another study (Huang, 2019) which shows that the affective role is the lowest in both face-to-face blended learning and online learning contexts. The reasons behind this remain unclear and therefore need further investigation. However, several possible factors can be investigated such as large class size and teachers' reluctance to maintain the rhythm and pace of online communication.

6. Conclusion

The present study has proved that in a low-tech online learning environment, teachers performed a more noticeable cognitive role followed by a managerial role and the last was an affective role. In other words, prospective EFL teachers in a low-tech online learning environment thought that the cognitive role of teachers was more noticeable and hence more important and useful than the other two roles.

7. Implication

Based on the results, teachers who teach in a low-tech online learning environment must place a higher emphasis on their cognitive activities. Students recognize teacher's cognitive role more often than the other two roles and thus teaching-related behaviours such as clarifying students' learning focus, explaining the materials to avoid misperception and correcting students' mistakes are more meaningful for the students and are more required to create a positive online learning atmosphere for them. In a low-tech online learning context where the teacher's cognitive role is more required, an environment that encourages students to learn independently and become autonomous would be unsuitable for students, although it would be good for teachers. These findings also imply that a teacher training program, a program designed to equip prospective teachers with the knowledge, attitudes, behaviours, skills, techniques and strategies required to perform teaching tasks more effectively must be able to provide teaching scenarios where prospective teachers can practice various forms of discourse in accordance with cognitive, managerial and affective roles in the classroom, demonstrate their knowledge on utilizing tools and technologies to teach English, solve technical issues, record students' activities and give feedback, collaborate with their peers to design or modify a teaching plan with a bigger proportion of online active learning activities and various classroom projects, show managerial skills such as performing different types of discipline in online instructional activities and create differentiated online instruction to meet learners' needs.

8. Limitations

This present study has at least two limitations. First, the participants of this research were prospective EFL teachers from only seven provinces in Indonesia and were selected through a convenience sampling method. Second, the context being investigated was only online learning environment. Future studies can used to investigate the diverse roles of teachers by comparing teacher's and student's perspectives using different research

methods, comparing teacher's roles across different online contexts and education levels and examining teachers' roles in various scenario-based active learning activities.

References

Ammenwerth, E. (2017). Envisioning changing role of university teacher in online instructional environments. *All Ireland Journal of Higher Education, 9*(3), 3121-3129.

Anggawirya, A. M., Prihandoko, L. A., & Rahman, F. (2021). *Teacher's role on teaching English during pandemic in a blended classroom.* Paper presented at the Proceedings of the International Joined Conference on Social Science (ICSS 2021), Ternate, Indonesia.

Bajrami, L. (2015). Teacher's new role in language learning and in promoting learner autonomy. *Procedia - Social and Behavioral Sciences, 199*, 423–427. https://doi.org/10.1016/j.sbspro.2015.07.528

Campana, K., & Agarwal, N. K. (2019). The landscape of research on learning in low-tech environments. *Information and Learning Sciences, 120*(11-12), 687-703. https://doi.org/10.1108/ils-10-2019-0103

Coppola, N. W., Hiltz, S. R., & Rotter, N. G. (2002). Becoming a virtual professor: Pedagogical roles and asynchronous learning networks. *Journal of Management Information Systems, 18*(4), 169–189. https://doi.org/10.1080/07421222.2002.11045703

Eka, D. A. (2013). Teachers' and students' perception of their roles in the teaching and learning of science. *Journal of Educational and Social Research, 3*(9), 109-109. https://doi.org/10.5901/jesr.2013.v3n9p109

George, D., & Mallery, P. (2003). *SPSS for windows step by step: A simple guide and reference. 11.0 update* (4th ed.). Boston: Allyn & Bacon.

Gliem, J. A., & Gliem, R. R. (2003). *Calculating interpreting and reporting cronbach's alpha reliability coefficient for likert-type scales. 2003.* Paper presented at the Midwest Research to Practice Conference in Adult Continuing and Community Education Ohio USA.

Han, L. (2014). Teacher's role in developing learner autonomy: A literature review. *International Journal of English Language Teaching, 1*(2), 21-27. https://doi.org/10.5430/ijelt.v1n2p21

Herbert, A., Nykvist, S., Man, B. T. H., Mai, H. T. T., Thuy, L. D. T., & Truong, T. T. A. (2022). Shifting identities and changing mindsets: A case of lecturers adopting digital pedagogies in Vietnam. In Burgsteiner, Harald & Krammer, Georg (Eds.) Impacts of COVID-19 pandemic's distance learning on students and teachers in schools and in higher education – international perspectives. In (pp. 445–467): Leykam Buchverlag.

Huang, Q. (2017). Development of an instrument to explore teacher roles based on perceptions of English learners in online learning context. *Cross-Cultural Communication, 13*(5), 1–13.

Huang, Q. (2018). Examining teachers' roles in online learning. *The Eurocall Review, 26*(2), 3-18. https://doi.org/10.4995/eurocall.2018.9139

Huang, Q. (2019). Comparing teacher's roles of F2f learning and online learning in a blended English course. *Computer Assisted Language Learning, 32*(3), 190-209. https://doi.org/10.1080/09588221.2018.1540434

Huang, Q. (2021). Exploring teacher roles in relation to classroom activities in an activity-dominated English class: The learners' perspectives. *European Journal of English Language Teaching, 6*(6), 168-190. https://doi.org/10.46827/ejel.v6i6.3988

Husin, H. S., Ismail, S., Ali, S. H. S., & Rauf, U. F. A. (2022). Conceptual framework of factors affecting online teaching. *International Journal of Innovative Research and Scientific Studies, 5*(4), 354–362. https://doi.org/10.53894/ijirss.v5i4.874

Ideland, M. (2021). Google and the end of the teacher? How a figuration of the teacher is produced through an ed-tech discourse. *Learning Media and Technology, 46*(1), 33-46. https://doi.org/10.1080/17439884.2020.1809452

Irianti, M., & Putra, T. Y. (2021). Analysis of Sorong Muhammadiyah University of Education (UNIMUDA) students' perceptions of online learning during the Covid-19 period. *Education Journal, 9*(2), 92-101. https://doi.org/10.36987/jes.v9i1.2528

Lalduhawma, L. P., Thangmawia, L., & Hussain, J. (2022). Effectiveness of online learning during the COVID -19 Pandemic in Mizoram. *Journal of Education and E-Learning Research, 9*(3), 175–183. https://doi.org/10.20448/jeelr.v9i3.4162

Martin, A. A. (2022). Examining teachers' perceptions of school effectiveness in Public Primary and Secondary Schools. *American Journal of Social Sciences and Humanities, 7*(2), 178–192. https://doi.org/10.55284/ajssh.v7i2.818

Nicol, A. A., Owens, S. M., le Coze, S. S., MacIntyre, A., & Eastwood, C. (2018). Comparison of high-technology active learning and low-technology active learning classrooms. *Active Earning in Higher Education, 19*(3), 253–265. https://doi.org/10.1177/1469787417731176

Richards, K. (2003). *Qualitative inquiry in TESOL.* New York: Palgrave Macmillan.

Sadeghi, M., & Sahragard, R. (2016). A questionnaire and model of role identity for Iranian english language teachers: A structural equation modeling. *Journal of Language Teaching and Research, 7*(6), 1153–1163. https://doi.org/10.17507/jltr.0706.13

Sakai, S., Chu, M.-P., Takagi, A., & Lee, S. (2008). Teachers' roles in developing learner autonomy in the East Asian region. *The Journal of ASIA TEFL, 5*(1), 97-121.

Sason, H., Wasserman, E., Safrai, M. Z., & Romi, S. (2022). Students' perception of the role of online teachers: Comparing routine and emergency times. *Frontiers in Education, 6*, 1-8. https://doi.org/10.3389/feduc.2021.767700

Satyawan, I. M., Wahjoedi, W., & Swadesi, I. K. I. (2021). The effectiveness of online learning through Undiksha e-learning during the covid-19 pandemic. *Journal of Education Technology, 5*(2), 191-199. https://doi.org/10.23887/jet.v5i2.32364

Soneral, P. A. G., & Wyse, S. A. (2017). A SCALE-UP mock-up: Comparison of student learning gains in high- and low-tech active-learning environments. *CBE—Life Sciences Education, 16*(1), 1-15. https://doi.org/10.1187/cbe.16-07-0228

Sullivan, G. M., & Artino Jr, A. R. (2013). Analyzing and interpreting data from likert-type scales. *Journal of Graduate Medical Education, 5*(4), 541-542. https://doi.org/10.4300/JGME-5-4-18

Tungka, N. F., & Tarinje, O. C. N. (2021). EFL students' perceptions on the integration of WhatsApp in a low-tech learning environment. *Language Journal of Lingua Scientia, 13*(2), 271-290.

Udil, P. A. (2020). Student perceptions of lectures based on E-learning using schoology. *Fractals: Journal of Mathematics and Mathematics Education, 1*(1), 79-91.

Wang, Y., Stein, D., & Shen, S. (2021). Students' and teachers' perceived teaching presence in online courses. *Distance Education, 42*(3), 373-390. https://doi.org/10.1080/01587919.2021.1956304

Wiboolsri, Y. (2008). *Measurement and achievement test construction.* Bangkok, Thailand: Chulalongkorn University Press.

Yengin, İ., Karahoca, D., Karahoca, A., & Yücel, A. (2010). Roles of teachers in e-learning: How to engage students & how to get free e-learning and the future. *Procedia-Social and Behavioral Sciences, 2*(2), 5775-5787. https://doi.org/10.1016/j.sbspro.2010.03.942