

CHAPTER 4

RESULTS OF DATA ANALYSIS

In this chapter, it is divided into three parts; namely, 1) general information 2) problems and needs including strengths and weaknesses of online English grammar teaching and 3) effective strategic guidelines of online English grammar teaching.

Part 1 General information

Table 4.1: General information of students

General information		Total(n)=392	
		Frequency	Percentage
Gender	Male	130	33.2
	Female	262	66.8
Total		392	100
Ages	18-20	337	85.9
	21-24	55	14.1
Total		392	100
Hours of learning online	1-3 hours/day	12	3
	4-6 hours/day	230	58.7
	7-10 hours/day	150	38.3
Total		392	100

According to table 4.1, in the students sample group, there are 262 female (66.8%) and 130 male (33.2%). Most of the sample group are in the age between 18-20 (85.9%) and rest are in between 21-24 (14.1%). It is indicated that 230 students (58.7%) learnt 2-4 hours per day, and 159 students (38.3%) learnt 7-10 hours per day. Moreover, it is found that only 12 students (3%) learnt online 1-3 hours per day.

Table 4.2: General information of teachers

General information		Total(n)=67	
		Frequency	percentage
Gender	Male	37	55.2
	Female	30	44.8
Total		67	100
Ages	21-25	0	0
	26-30	12	17.9
	31-35	17	25.4
	36-40	15	22.4
	41-45	11	16.4
	45-50	7	10.4
	51 and above	5	7.5
Total		67	100
Education	Bachelor Degree	16	23.9
	Master Degree	39	58.2
	Doctoral Degree	12	17.9
Total		67	100
Years of being a teacher	1-5	0	0
	6-10	18	26.9
	11-15	16	23.9
	16-20	11	16.4
	21-25	13	19.4
	26-30	2	3
	31-35	2	3
	36-40	5	7.5
Total		67	100
Hours of teaching online	1-3 hours/day	19	28.4
	4-6 hours/day	32	47.8
	7-10 hours/day	16	23.8
Total		67	100

According to table 4.2, in the teachers sample group, there are 30 female (44.8%) and 37 male (55.2%). About the age, the number of the teacher at the age of 26-30 is 12, accounting for 17.9%, the number of the teacher at the age of 31-35 is 17, accounting for 25.4%, the age of 35-40 is 15, accounting for 22.4%, the age of 41-45 is 11, accounting for 16.4%, the age of 45-50 is 7, accounting for 10.4%, and the number of the people at the age of 51 and above is 5, accounting for 7.5%. About the education, the highest percentage is 58.2 % of master degree, the lowest percentage is 17.9% of doctoral degree, which is following behind the education degree is bachelor degree 23.9%. Besides, years of being a teacher the highest percentage is 26.9%, Percentages are sorted from highest to lowest as 23.9%, 19.4%, 17.9%, 16.4%, 7.5%, 3%. At last, It is indicated that 32 teachers (47.8%) taught online 4-6 hours per day, and 19 teachers (28.4%) taught online, moreover it is found that only 16 teachers taught online 1-3 hours per day.

Part 2 Problems and needs of online English grammar learning.

Table 4.3: Problems of online English grammar learning for students

Items	n=392		Level of problems
	\bar{X}	S.D.	
Problems			
1) You think that online learning causes lots of problems for learning steps.	4.69	0.20	Highest
2) You are not confident in online learning.	4.50	0.41	High
3) Your online learning equipment is difficult to use.	4.51	0.32	Highest

Table 4.3: Problems of online English grammar learning for students (Cont)

Items	n=392		Level of problems
	\bar{X}	S.D.	
Problems			
4) Online learning sometimes causes you to slow down your learning tasks.	4.64	0.47	Highest
5) Online courses are rich in resources and materials but difficult to connect.	4.45	0.37	High
6) The Wi-Fi in the home is sometimes hard to connect.	4.48	0.28	High
7) Your computer is sometimes difficult wired with learning equipment.	4.65	0.21	Highest
8) The video playback feature sometimes creates difficulties for you to complete the course playback.	4.50	0.21	High
9) The online learning equipment usually works slowly due to poor connection.	4.49	0.48	High
10) Online learning sometimes makes students easy to cheat the test.	4.66	0.51	Highest
11) Online learning creates some limitations of interacting with teachers.	4.34	0.39	High
12) Online learning sometimes decreases students' interest in study.	4.61	0.33	Highest
13) Online learning often reduces your study time.	4.56	0.27	Highest
14) Online learning sometimes creates more difficulties for students to review the lesson.	4.61	0.37	Highest

Table 4.3: Problems of online English grammar learning for students (Cont)

Items	n=392		Level of problems
	\bar{X}	S.D.	
Problems			
15) Online learning sometimes creates more difficulties for students to consult their teachers.	4.59	0.41	Highest
16) Online learning resources are more abundant but hard to screen out the qualified teaching materials.	4.61	0.40	Highest
17) Online courses are plenty but some are not effective.	4.65	0.20	Highest
18) Online courses are usually more difficult to download or to save files.	4.45	0.37	High
19) You can watch a lot of online videos causing distractions from learning tasks.	4.50	0.31	High
20) Online learning sometimes makes it more difficult for students to finish homework.	4.50	0.40	High
Total	4.55	0.35	Highest

As presented in Table 4.3, it is evident that the students rated the problems of English grammar online learning at the highest level. Firstly, most students indicate that the reasonableness of learning systems (Item 1) has the highest impact on online learning with $\bar{X}=4.69$, S.D. = 0.20. Secondly, most of students indicate that online courses are plenty but some are not effective (Item 17) has the highest impact on online learning with $\bar{X}=4.65$, S.D. = 0.20. Thirdly, just a few of students indicate that online learning creates some limitations of interacting with teachers (Item 11) has the highest impact on online learning with $\bar{X}=4.34$, S.D. = 0.39.

Needs of online English grammar learning

Table 4.4: Needs of online English grammar learning for students

Items	n=392		Level of needs
	\bar{X}	S.D.	
Needs			
1) You think that online learning helps enhance the effectiveness of learning steps.	4.69	0.40	Highest
2) You are confident in online learning.	4.50	0.36	High
3) Your online learning equipment is easy to use.	4.45	0.20	High
4) Online learning helps you to speed up your learning tasks.	4.48	0.37	High
5) Online courses are rich in resources and materials and easy to connect.	4.50	0.50	High
6) The Wi-Fi in the home is normally easy to connect.	4.58	0.41	Highest
7) Your computer is normally wired with learning equipment.	4.65	0.52	Highest
8) The video playback feature normally facilities you to complete the course playback.	4.55	0.44	Highest
9) The online learning equipment usually works quickly due to good connection.	4.51	0.42	Highest
10) Online learning normally helps protect the cheating of the test.	4.46	0.20	High
11) Online learning normally has no limitations of interacting with students.	4.43	0.38	High

Table 4.4: Needs of online English grammar learning for students (Cont)

Items	n=392		Level of needs
	\bar{X}	S.D.	
Needs			
12) Online learning normally increases students' interest in learning.	4.61	0.40	Highest
13) Online learning normally increases students' learning time.	4.56	0.33	Highest
14) Online learning often helps students to review the lesson.	4.51	0.37	Highest
15) Online learning normally helps students to consult their teachers.	4.40	0.32	High
16) Online learning resources are more abundant.	4.41	0.28	High
17) Online courses are mostly effective.	4.60	0.36	Highest
18) Online courses are normally easy to download or to save files.	4.69	0.20	Highest
19) You can watch a lot of online videos to broaden your vision and increase your knowledge.	4.59	0.41	Highest
20) Online learning normally helps sending assignments to the students.	4.50	0.21	High
Total	4.54	0.35	Highest

According to table 4.4, it is indicated that the students rated the needs of online English grammar learning at the highest level. Firstly, most students indicate that online learning helps enhance the effectiveness of learning system (Item 1) and online courses are normally easy to download or to save files (Item 18) has the highest impact on online learning with $\bar{X}=4.69, S.D.=0.40$. Secondly, most of students indicate that your computer is normally wired with learning equipment (Item 7) has the highest impact on online learning with $\bar{X}=4.65, S.D. = 0.52$. Thirdly,

many students indicate that online learning normally helps students to consult their teachers (Item 15) has the highest impact on online learning with $\bar{X}=4.40, S.D.= 0.32$.

Problems and needs of online English grammar teaching

Table 4.5 : Problems of online English grammar teaching for teachers

Items	n=67		Level of problems
	\bar{X}	S.D.	
Problems			
1) You think that online teaching causes lots of problems for teaching systems.	4.50	0.21	High
2) You are not confident in online teaching.	4.51	0.48	Highest
3) Your online teaching equipment is difficult to use.	4.47	0.42	High
4) Online teaching sometimes causes you to slow down your teaching tasks.	4.59	0.45	Highest
5) Online courses are rich in resources and materials but difficult to connect.	4.49	0.45	High
6) The Wi-Fi in the home is sometimes hard to connect.	4.58	0.44	Highest
7) Your computer is sometimes difficult wired with teaching equipment.	4.59	0.20	Highest
8) The video playback feature creates difficulties for you to complete the course playback.	4.43	0.50	High
9) The online teaching equipment usually works slowly due to poor connection.	4.60	0.47	Highest

Table 4.5 : Problems of online English grammar teaching for teachers (Cont)

Items	n=67		Level of problems
	\bar{X}	S.D.	
Problems			
10) Online teaching sometimes makes students easy to cheat the test.	4.49	0.43	High
11) Online teaching creates some limitations of interacting with teachers.	4.37	0.37	High
12) Online teaching sometimes decreases students' interest in study.	4.50	0.31	High
13) Online teaching often reduces your study time.	4.57	0.23	Highest
14) Online teaching sometimes creates more difficulties for students to review the lesson.	4.38	0.36	High
15) Online teaching sometimes creates more difficulties for students to consult their teachers.	4.61	0.42	Highest
16) Online teaching resources are more abundant but hard to screen out the qualified teaching materials.	4.48	0.39	High
17) Online courses are plenty but some are not effective.	4.50	0.20	High
18) Online courses are usually more difficult to download or to save files.	4.39	0.34	High
19) You can watch a lot of online videos causing distractions from teaching tasks.	4.53	0.48	Highest
20) Online teaching sometimes makes it more difficult for students to finish homework.	4.57	0.42	Highest
Total	4.50	0.37	High

As provided in Table 4.5, it is obvious that the teachers rated the problems of online English grammar teaching at the high level. Firstly, most teachers indicate that online teaching sometimes creates more difficulties for students to consult their teachers (Item 15) has the highest impact on online teaching with $\bar{X}=4.61$, S.D. = 0.42. Secondly, most of teachers indicate that the online teaching equipment usually sometimes works slowly due to poor connection (Item 9) has the highest impact on connecting $\bar{X}=4.60$, S.D. = 0.47. Thirdly, only a few of teachers indicate that online courses are usually more difficult to download or to save files (Item 18) has the highest impact on online learning with $\bar{X}=4.39$, S.D.= 0.34.

Table 4.6: Needs of online English grammar teaching for teachers

Items	n=67		Level of needs
	\bar{X}	S.D.	
Needs			
1) You think that online teaching helps enhance the effectiveness of teaching methodology.	4.51	0.30	Highest
2) You are confident in online teaching.	4.50	0.33	High
3) Your online teaching equipment is easy to use.	4.50	0.32	High
4) Online teaching helps you to speed up your teaching tasks.	4.51	0.30	Highest
5) Online courses are rich in resources and materials and easy to connect.	4.49	0.47	High
6) The Wi-Fi in the home is normally easy to connect.	4.36	0.42	High
7) Your computer is normally wired with teaching equipment.	4.48	0.52	High

Table 4.6: Needs of online English grammar teaching for teachers (Cont)

Items	n=67		Level of needs
	\bar{X}	S.D.	
Needs			
8) The video playback feature normally facilities you to complete the course.	4.47	0.53	High
9) The online teaching equipment usually works quickly due to good connection.	4.48	0.41	High
10) Online teaching normally helps protect the cheating of the test.	4.50	0.30	High
11) Online teaching normally has no limitations of interacting with students.	4.46	0.35	High
12) Online teaching normally increases students' interest in learning.	4.54	0.46	Highest
13) Online teaching normally increases teacher' teaching time.	4.55	0.43	Highest
14) Online teaching normally helps students to review the lesson.	4.58	0.37	Highest
15) Online teaching normally helps students to consult their teachers.	4.55	0.32	Highest
16) Online teaching resources are more abundant.	4.53	0.20	Highest
17) Online courses are mostly effective.	4.34	0.34	High
18) Online courses are normally easy to download or to save files.	4.50	0.41	High
19) You can watch a lot of online videos to broaden your vision and knowledge.	4.60	0.41	Highest

Table 4.6: Needs of online English grammar teaching for teachers (Cont)

Items	n=67		Level of needs
	\bar{X}	S.D.	
Needs			
20) Online teaching normally helps sending assignments to the students.	4.67	0.20	Highest
Total	4.50	0.37	High

According to table 4.6, it is indicated that the teachers rated the needs of online English grammar teaching at the high level. Firstly, most teachers indicate that online teaching normally helps sending assignments to the students (Item 20) has the highest impact on online teaching with $\bar{X}=4.67$, S.D.= 0.20. Secondly, most of teachers indicate You can watch a lot of online videos to broaden your vision and increase your knowledge (Item 19) has the highest impact on teaching resources with $\bar{X}=4.60$,S.D.=0.41.Thirdly, only a few of teachers indicate that online courses are mostly effective (Item 17) has the high impact on online teaching with $\bar{X}=4.34$,S.D.=0.34.

Part 3 To develop strategic guidelines of online English grammar teaching.

3.1 The results of Strengths and weaknesses of online English grammar teaching in focus group discussion meeting.

Table 4.7: The results of the opinions and ideas of 5 English teachers, 2 specialists, and 2 administrators, in focus group discussion meeting, towards the strengths and weaknesses of online English grammar teaching.

Questions
1. How can you solve the problem of students learning steps in online English grammar learning?
2. What do you believe are the university strengths of online English grammar teaching?
3. In your experience, what are the main weaknesses or challenges associated with online English grammar instruction?
4. Can you share examples of how online English grammar teaching has been particularly effective in improving students' language skills?
5. How does online English grammar teaching compare to traditional classroom instruction in terms of effectiveness?
6. As an English grammar instructor, specialists or administrators, what tools or resources have you found most beneficial in online teaching?
7. Are there any drawbacks or limitations you've encountered when delivering grammar lessons online?
8. How well do online English grammar teaching methods adapt to the needs of a diverse student body, and including those who have various learning styles or aptitudes?

According to the opinions and ideas of 9 participants (5 English teachers, 2 specialists, and 2 administrators) in focus group discussion meeting, towards the strengths and weaknesses of online English grammar teaching, they mentioned the problem of students in the learning steps of online English grammar learning, how to improve students' language skills, the difference instruction between online English grammar teaching and traditional classroom, and the resources beneficial in online teaching. To maintain the level of strengths and get rid of weaknesses, then we have to develop strategic guidelines for online English grammar teaching, the data illustration of a strengths and weaknesses matrix is presented in the figure below.

The characteristics of the participants are shown in Table 4.8

Table 4.8 *Demographic Background of the Participants*

Number of participants	9
Age	25-55
Gender	Female/male
Level of Proficiency	Various

After conducting focus group discussion meeting and gathering insights on the strengths and weaknesses of online English grammar teaching, researcher had collected various perspectives and opinions. Here's a summary of potential findings based on common themes that might emerge from those focus group discussion meeting:

Online English grammar teaching has gained popularity in recent years; however, it presents a unique set of difficulties, needs, strengths, and weaknesses for both teachers and students.

Strengths and Weaknesses of online English grammar teaching for teachers:

Strengths:

1. Flexibility: Online teaching offers flexibility in terms of scheduling, allowing teachers to balance work and personal life more easily.

2. Diverse Resources: The internet provides a vast array of resources, such as interactive exercises and multimedia materials, all of resources that can enhance teaching.

3. Global Reach: Online teaching enables teachers to reach a global audience, especially if they are teaching English as foreign language.

Weaknesses:

1. Limited Classroom Management: Managing a virtual classroom can be more challenging than a traditional classroom, as it can be difficult to ensure student engagement and discipline.

2. Technical Challenges: Technical issues, such as software failures or connectivity problems, can disrupt the flow of lessons and hinder effective teaching.

3. Reduced Personal Interaction: Online teaching can limit the depth of personal interaction, making it challenging to build rapport and understand each student's unique needs.

Strengths and Weaknesses of online English grammar learning for Students:

Strengths:

1. Convenience: Online learning is convenient, permitting independent study time and pace for students.

2. Multimedia Resources: Online resources often include multimedia elements, making grammar lessons more engaging and interactive.

3. Self-Paced Learning: Online materials often allow for self-paced learning which can benefit students who need extra time to understand certain grammar concepts.

Weaknesses:

- 1. Lack of Social Interaction:** The absence of face-to-face interaction can be isolating, affecting students' motivation and communication skills.
- 2. Dependence on Technology:** Students may become too reliant on technology for learning, potentially hindering their ability to learn offline or in traditional classroom settings.
- 3. Quality Control:** The quality and accuracy of online resources can vary, making it essential for students to discern between reliable and unreliable resources.

In summary, online English grammar teaching offers several benefits but also presents its share of challenges. To address these issues, it's crucial for both teachers and students to adapt and make the most of the available resources while recognizing and mitigating the associated weaknesses. Effective online grammar teaching requires ongoing support, flexibility, and a commitment to improving the online learning experience.

The strategic guidelines for developing online English grammar teaching with PDCA

Utilizing the PDCA (Plan-Do-Check-Act) cycle in developing online English grammar teaching can be instrumental in ensuring a structured and effective approach towards achieving educational goals. Here's a breakdown of how the PDCA cycle mode can be integrated into the strategic guidelines for online grammar teaching:

1) Plan

Curriculum Planning: Develop a comprehensive curriculum covering all essential aspects of English grammar and set clear learning objectives and outcomes for each lesson.

Technology Selection: Plan and choose suitable online platforms and technologies for delivering lessons, assess learners, facilitate interactions, ensure the

technology is user-friendly and accessible to all learners.

Resource Compilation: Create or collect resources materials such as interactive exercises, videos, reading materials, and ensure resources are aligned with the curriculum and learning objectives.

2) Do

Lesson Delivery: Implement the planned curriculum by delivering lessons, providing resources, facilitate learner interactions, monitor the progress of learners, and provide feedback to enhance understanding.

Engagement Strategies: Implement engagement strategies to keep learners motivated, active in their learning journey, foster a supportive and interactive online learning community.

3) Check

Effectiveness Evaluation: Evaluate the effectiveness of the improvements and modifications and assess whether learning objectives are being met and if learners are progressing.

Continuous Monitoring: Continuously monitor, evaluate the teaching process, learner progress, the effectiveness of the resources and online platform, and ensure that the modifications are leading to desired outcomes in learners' understanding and performance.

4) Act

Feedback Collection: Collect feedback from learners on the effectiveness of the lessons, resources, the online platform and utilize analytics and assessment results to understand areas of strengths and weaknesses.

Improvement Implementation: Implement improvements based on the feedback and assessment results and modify lesson plans, resources, or engagement strategies as necessary to enhance learning experiences.

By adhering to the PDCA cycle model, educators and administrators can ensure a systematic, responsive, and effective approach towards developing and enhancing online English grammar teaching. This cyclical approach allows for continuous evaluation, feedback, and improvements, ensuring a dynamic and effective online learning environment that caters to the needs and progress of

learners.

The guidelines of online English grammar teaching in the English contexts for the English teachers in Kunming Medical University Haiyuan College comprised of nine units, in each unit included of Guidelines for a College; Teaching Strategies; Learning Resource; Grammar rules and tenses. All of the nine units namely, 1) Teaching Management on Present Simple and Present Continuous 2) Teaching Management on Simple Past and Past Continuous 3) Teaching Management on Present Perfect and Present Perfect Continuous 4) Teaching Management on Past Perfect and Past Perfect Continuous 5) Teaching Management on Future and Future Continuous 6) Teaching Management on Active Voice and Passive Voice 7) Teaching Management on Simple, Compound, and Complex Sentences 8) Teaching Management on Positive and Negative Sentences and 9) Teaching Management on Questions and Questions Tags. Every unit comprises two or three tenses, and each tense is followed through exercises that assist students practice their knowledge of English grammar. The three specialists evaluated each of the nine units for correctness and content suitability, and the results were presented in terms of IOC (Index of Item-Objectives Congruence) values. After evaluation, all nine units were IOC values that varied from 0.67 to 1.00, showing that the English grammar online teaching guidelines which were developed for English teachers in English contexts were deemed acceptable. Consequently, that they could be utilized for English teachers at Kunming Medical University Haiyuan College in order to enhance their English grammar proficiency.

The final results of developing guidelines for teaching English grammar online can have an important impact on how effectively students learn the material and how beneficial the lessons are overall. The points that follow are some potential benefits and positive outcomes for three specialists:

The first specialist:

1) Improved Learning Outcomes: Well-defined learning objectives and a comprehensive curriculum can lead to improved learning outcomes, as students have a clear path to follow and a structured approach to mastering grammar

concepts.

2) Enhanced Engagement: Engaging content, interactivity, and multimodal learning can boost student engagement and motivation, making it more likely for learners to stay committed to their studies.

3) Personalized Learning: The use of adaptive learning technologies allows for personalized learning experiences, catering to individual learner needs, which can lead to better retention and understanding.

The second specialist:

1) Effective Assessment: Regular assessments and timely feedback enable learners to identify and correct grammar mistakes, leading to skill improvement over time.

2) Communication and Collaboration: Effective communication channels and opportunities for collaboration can foster a sense of community among learners, creating a supportive environment for language development.

3) Quality Assurance: Maintaining the quality of instruction is made feasible by regularly examining and updating course materials in order to make sure the content was precise and complies with contemporary language standards.

4) Technical Support: Providing technical support ensures that learners can access course materials without disruptions, improving the overall learning experience.

The third specialist:

1) Professional Development: Investing in instructor training and development ensures that educators are well-prepared to deliver high-quality online grammar instruction.

2) Accessibility and Inclusivity: Ensuring accessibility for all learners, regardless of disabilities, promotes inclusivity and accommodates a diverse range of students.

3) Data Privacy and Security: Prioritizing data privacy and security protects both learners and the institution, fostering trust in the online learning environment.