

CHAPTER IV

FINDINGS AND DISCUSSION

This chapter will explain how the author obtains data and also provides the results of the data analyzed from various journal sources circulating on the internet. It also reports on the characteristics of the studies that have been included in this systematic review, and the ones which answered the research question.

A. Findings

1. Results of the database extraction

The first and second inquiries inside the data sets were concluded, and as indicated by the pre-set up search measures, more than 200.000 reports were prohibited as they didn't zero in differentiated instruction identified with EFL, leaving 17 journals for additional thought. Subsequent to carrying out the last hunt channel, which was centered around the terms EFL understanding perception and independence, 13 journals were excluded. In this respect a sum of 5 journals were chosen for the screening of titles and edited compositions. From an introductory inquiry of 200.000 articles, a portrayal of 4 studies of exact exploration appears diminished. Be that as it may, just those 5 journals completely adjusted to the determination models intended for this study, and permitted the researcher to answer the research question. The 13 articles were evaluated for qualification by using the inclusion and exclusion criteria and reached minimum journal rank planned preceding the inquiry.

At last, the 3 journals were broke down to address the research question proposed for this systematic review. The research question aimed to break down whenever differentiated instruction affected EFL reading comprehension.

2. Characterization of the studies and interpretation of findings

The quantity of entries is reduced when the reading comprehension are added to this research . After the search, it tends to be reasoned that differentiated is a moderately new idea in the field of reading comprehension, as parts that may be improved by this instruction.

In the accompanying area some broad qualities of the examinations are distinguished, like years and place of creation/distribution, populace, and settings.

Author and Year	Country	Education Sector	Population	Grade	Journal Rank
Ruth Boelens, Michiel Voet, Bram De Wever (2018)	Belgium	Vocational or technical secondary education	Teachers	Not Indicated	Q1
Lisbeth M. Brevik, Ann Elisabeth Gunnulfsen, Joseph S. Renzulli (2017)	Norwegia	Primary and Secondary school	Teachers and Students	Grade 1-13	Q1
Catherine A. Little, D. Betsy McCoach, and Sally M. Reis (2014)	USA	Middle school	Teachers and Sudents	Grade 6-8	Q2

3. Ruth Boelens, Michiel Voet & Bram De Wever (2018)

This study meant to sum up, it is accordingly rather hazy how contrasts in teachers' techniques for and convictions about differentiated instruction in mixed learning may be clarified. The study is for a bigger reserach project in Flanders (Belgium), on the plan of mixed learning courses of action for students selected an instructor preparing program inside grown-up schooling. Members of this examination were teachers working in an instructor preparing program in a grown-up training community in Flanders. Two center schooling places were reached. These two places varied in size and by they way they sort out the educator preparing programs.

	Center A	Center B
Grouping (institutional level)	Heterogeneous groups	Homogeneous groups
Specific teacher training (60 credits)	(1) E-learning with weekly face-to-face meetings (2) Non-modular (3) Modular	(1) For students with a degree of vocational or technical secondary education (2) For students with a degree of higher education
Instructors' average experience in teacher education	7.32 years (SD=5.51, n=14)	4.58 years (SD=1.43, n=6)

Figure 4.1 Grouping Center

This study invited participant in the study were sent out to all instructors working in teacher training in one of the two adult education centers. The first author contacted the instructors through email, and requested a response within two weeks. Afterwards, a reminder was send to those who had not yet responded. In center A, 15 out of 19 instructors were willing to participate, while in center B, 6 out of 7 instructors were willing to take part. In other words, the response rate was about equal in both

centers, with respectively 79% and 86% in center A and B. Prior to data collection, all participants received an explanation of the project. Participation was voluntary and the instructors gave their informed consent for participation, having been made fully aware of the nature and purpose of the research.

Instructor	Differentiated instruction categories ¹									Total number of differentiated instruction strategies
	Content		Process			Product		Affect	ICT support	
	More varied teaching materials	Additional support	Whole class instruction	Grouping	Individualized activities	Additional support	Varied assessment options	Climate		
B1	✓	✓	✓				✓		✓	5
B2		✓	✓		✓	✓	✓	✓		6
B3		✓	✓			✓	✓			4
B4		✓	✓			✓	✓	✓		5
B5							✓	✓	✓	3
B6								✓	✓	2
A7	✓		✓							2
A8				✓		✓				2
A9			✓			✓	✓		✓	4
A10	✓	✓	✓			✓	✓	✓	✓	7
A11			✓	✓	✓				✓	4
A12			✓			✓		✓		3
A13	✓								✓	2
A14										0
A15						✓		✓		2
A16	✓		✓			✓				3
A17		✓				✓	✓			3
A18			✓	✓	✓	✓		✓		5
A19					✓	✓				2
A20							✓			1

Figure 4.2 Differentiated Instruction Categories

Differentiated instruction categories ¹	Illustration	Used by N instructors
1. Content	-	9
1.a. Provide varied teaching materials	"I make a distinction between basic subject matter and additional subject matter, or provide students with additional video fragments, tools and quizzes to exercise, so that students can choose which materials they want to use to process subject matter (instructor A10)."	5
1.b. Provide additional support in teaching materials	"I integrate pictograms in the learning material to show students what is important, less important, a problem statement, or an exercise (instructor B1)."	6
2. Process	-	13
2.a. Whole class instruction	"During my face-to-face lessons for students with a degree of higher education I do not really follow the course manual when I am teaching, while during my lessons for students with a degree of vocational or technical secondary education, I use the course manual as a guide and I stick to that course content (instructor B4)."	11
2.b. Grouping	"Students have to make an assignment in heterogeneous groups. They need to present their group product to the whole class and the whole class can react to their product. In this way, they are confronted with the diversity in the group, and everyone is challenged to do something more than he or she already could (instructor A8)."	3
2.c. Individualized activities	"Students could choose between several topics in some of the distance assignments: on the one hand we offered new, additional topics that were not discussed in class, and on the other hand we offered topics that were extensions from the content provided during the lessons (instructor A19)."	4
3. Product	-	15
3.a. Provide additional support throughout product development	"When students need to write a reflection, I provide them with different instructions. For learners with a higher education degree I give one open question and say: 'this is the maximum number of words'. For learners with a degree of secondary education, I divide the assignment into smaller parts and ask them to respond to multiple specific questions (instructor B2)."	12
3.b. Provide varied assessment options	"Students have the choice to make a digital brochure or another product instead of a paper since this focuses less on learners' writing skills (instructors B3, A17)."	9
4. Affect	-	8
4. Affect	"I often say to students with a degree of vocational or technical secondary education that they will be very important teachers. I try to create little success experiences, and help them to believe in their own successes (instructor B4)."	8
5. ICT support	-	7
5. ICT support	"After a face-to-face meeting, or during breaks, I show them how Moodle works, or how to format documents. I give them the space to grow and learn. For the first assignment, they may submit a flat, unformatted Word document, and then I provide some brief feedback on how they can format and edit the Word document (instructor A9)."	7

Figure 4.3 Differentiated Instruction Categories 2

The study investigated instructor' methodologies in mixed learning and their convictions about planning mixed figuring out how to address student's variety. The study explore the contrasts between educators, both were contrasted with each other, just as the association and direction where they work. The outcomes hold two significant ramifications to both hypothesis and practice.

As a matter of first importance, the tracking down that portion of the teachers accepted that student variety required no, or just restricted, variations to their mixed learning game plans, recommends that expert help zeroing in on these convictions is of critical significance for teacher to open mixed learning's maximum capacity. Considering this, the current examination's structure of methodologies for differentiated could be using as a beginning stage for extending teacher' procedures for adapting to student variety in mixed learning settings. Likewise, the three profiles concerning convictions about creating mixed learning game plans to address student' variety can be utilized by associations and educators to ponder their own training, to turn out to be more mindful of their own convictions, and to change their instructing approach.

Secondly, differences in instructors' beliefs about the plan of mixed learning were, as per the current research essentially owing to the authoritative level, or the middle and directions where teachers work. In that capacity, it is significant for associations to foster a reasonable position on this issue, which gives unequivocal consideration to proactively arranging

differentiated instruction and reacting to students' necessities in mixed learning settings. Late work on institutional appropriation could fill in as a system for this sort of attempt. The author said that this is likewise a significant issue for future research, which ought to research precisely how associations can add to the improvement of teachers' convictions about the plan of mixed figuring out how to address students' variety. A potential beginning stage for such study can be found in the writing on differentiated, which proposes that associations ought to make an aggregate duty, by offering openings for educators to share information, thoughts, and encounters, to upgrade proficient learning identified with differentiated instruction.

These are strategies that the teachers put forward to differentiate between students in this journals:

Content	(1) What students learn / what we teach (curricula)	Modify curricula (what we teach): match learning content to students' needs More varied lesson/instructional material, for example: - match materials to the specific instructional needs of groups - present information in varied ways: orally, visually, through demonstration, part to whole, and whole to part - provide text materials at varied reading levels and levels of complexity
	(2) How content is presented to students: resources and material students need to use to acquire the content and reach the learning goals	Additional support, for example: - provide advanced organisers, highlighted print materials, key ideas, visual aids, outlines, summaries - add structure - provide connections with prior knowledge or experiences - provide clear expectations and examples, using examples and illustrations that represent varied ways of thinking, or clarify the final goals with examples of successful work from other students
Process / activity	How students process the content	How the instructor modifies his/her teaching methods, instructional strategies, and learning activities based on student diversity. How he or she applies the content. Whole class instruction, adjust teaching methods and instructional strategies to the entire class. Flexibility in whole class instruction can be achieved when students are tracked in rather homogeneous class groups, or when instructors carefully select instructional strategies that attend to a specific group of students in the classroom and which is in addition beneficial for all students

		<ul style="list-style-type: none"> - different degrees of difficulty, complexity, or specificity - varying the pace of work - connections between learning activities and personal interests 	<p>(Flexible) grouping: use a variety of grouping strategies to match students and tasks (mixed or similar readiness/interests/learning profile)</p> <p>Individualized activities, for example: offer assignments on the same topic at varying degrees of difficulty, let students work at their own pace, give learners choices about topics in which to specialize, give students choices about ways of learning, provide additional instruction to the individual student</p>
Product	How students demonstrate what they have learned (i.e., know, understand, and can do) at certain points in a unit of study (formative and summative)	<p>Provide additional support: adequate scaffolding and support throughout product development. For example:</p> <ul style="list-style-type: none"> - additional feedback (during product development) - divide assignments into smaller steps - peer- and self-evaluation 	
		<p>Provide varied assessment options, for example:</p> <ul style="list-style-type: none"> - portfolios, authentic problems to solve,... - provide varied modes of expression (e.g., written paper vs oral presentation) to show mastery of common learning goals - give students choices about modes of expression 	
Affect / learning environment	The climate or tone of the classroom. How students feel about or respond to learning and the classroom environment (students' feelings impact their learning)	<p>The instructor stimulates...</p> <ul style="list-style-type: none"> - that everyone feels welcomed and contributes to everyone else feeling welcomed - mutual respect, to accept and appreciate one another's similarities and differences - that students feel safe in the classroom (students feel accepted and valued, students dare to say they don't know or dare to make mistakes) - every learner grow as much as he/she can in general ability and specific talents 	
Additional ICT support		The instructor provides additional ICT support in and outside the classroom, e.g., how to use the learning management system, or how to edit and format a Word document	

Figure 4.4 The strategies that the teachers put forward to differentiate between students

The findings show that the most commonly used differentiated instruction strategy in a blended learning context was providing students with additional support throughout product development. In addition, three instructor profiles about designing blended learning to address student diversity emerged from the data: (1) disregard: instructors considered no additional support in the blended learning arrangements to match students' needs, (2) adaptation: instructors believed that increased support in the existing blended learning arrangements was sufficient to match students' needs, and (3) transformation: instructors thought that blended learning arrangements should be designed in a completely different way, and be tailored to the characteristics of the students. It is same as Tomlinson (2001) stated in her book about 17 key systems for teacher to deal with the students in mixed-ability classroom.

Finally, the researcher found that the impact in reading comprehension is the content the teacher provides a variety of reading from the ordinary to the complex. After the process and product, they feel welcome, respect, feel accepted and valued, and grow as much as their ability.

4. Lisbeth M. Brevik, Elisabeth & Joseph S. Renzulli (2018)

This journal talked about a qualitative study focusing student teachers' understanding of differentiation for high-achieving secondary school students with higher learning potential using focus group interviews of Norwegian student teachers. The journal distinguished their comprehension of the using and differentiation, drawing from their showing practice and experience upholds the idea that teacher need trust in differentiation. As a result the author concluded that differentiation is extremely important in education, the purpose of the study is to identify student teachers' understanding of the use and value of differentiation for high-achieving students with higher learning potential.

The author designed this study as a qualitative exploratory approach; building on naturalistic case study methodology even case studies are far from only an exploratory method. The said this is important, as the case of student teachers' experiences and practices for differentiated instruction for high-achieving students with higher learning potential is understudied.

The author explained that as the fundamental reasoning for choosing the case is the absence of data about these separation measures; this is an

instrumental contextual investigation to all the more likely comprehend the issue . They looked for participant concentrating to become instructors in auxiliary school (grades 8-13), ideally from ME and TE projects to catch the most extreme variety in people on attributes like age, sexual orientation, showing experience, and instructive foundation. The authors also using document, group interview, mind map and audio recording to collecting the data. The participant is showed in the table below:

Participants.

Term	Program	Student teachers
2013 Spring	TE full-time	50
2013 Autumn	ME	52
2014 Spring	TE full-time	98
2014 Autumn	ME	37
2015 Spring	TE part-time	85
Total		322

Note. TE = Teacher Education, ME = Master of Education.

Figure 4.5 Participant

The finding furnish representations of practices with differentiated instruction for successful students with higher learning potential. Albeit the teacher from the TE and ME programs concurred that differentiated instruction for these students matters, and regardless of their changing showing encounters, they had exceptionally restricted practice in establishing such differentiation. The itemized instances of how teachers inside and across the cases communicated concerns accentuate the unpredictable idea of the ID of teacher and separation to address their necessities.

The authors in their articles find that task responsibility and

imagination are situational qualities that can be created, it is hard to perceive how students may foster these attributes except if they experience testing learning circumstances. This idea upholds investigations of successful students who were not tested scholastically in the classroom and the revealed absence of differentiation for student who were successful people in English perusing however low-achievers in Norwegian perusing This oddity recommends that when arranging differentiated instruction for their students, teachers should adjust their qualities with the unmet potential.

The results that differentiated instruction for these students matters, and despite their varying teaching experiences, they had very limited practice in enacting such differentiation because the author reported lack of differentiation for students who were high-achievers in English reading but low-achievers in Norwegian reading. The detailed examples of how student teachers within and across the cases expressed concerns emphasize the complex nature of the identification of students and differentiation to address their needs.

Next, illustrated how student teachers' practice and experience with high-achieving students with higher learning potential can contribute to new insights about differentiated instruction. This study provides valuable insight into student teachers' views concerning their own competence. Examples presented show that they express uncertainty regarding how to respond to these students' needs. This insight offers a unique opportunity for teacher education to provide useful information, examples, and situations to

plan and practice differentiation. Because student teachers are often concerned about what they feel they cannot do like Ur (1996) said “the differentiated which cause issues in heterogeneous classes are in language learning capacity, language information, social foundation, learning style, mentality towards language, first language, insight, world information, learning experience, information on different dialects, age, sex, character, certainty, inspiration, interests, and/or instructive level”.

Finally, the researcher found that the impact in reading comprehension is teachers prioritize content, such as distinguishing low and high content. Distinguishing reading variations and lots of practice for low-achieving students, and advanced training for high-achieving students and the results only increase skills for high learning potential than low ones.

5. Catherine A. Little, D. Betsy McCoach & Sally M. Reis (2014)

The researchers have raised genuine worries about perusing accomplishment at the middle school level, especially among students from socially assorted foundations in monetarily hindered metropolitan zones. This study based on earlier trial work at the rudimentary level to research the viability of the SEM-R approach in supporting perusing accomplishment in center school. The motivation behind this research, directed in four center schools across three states, was to analyze center school understudy accomplishment in understanding familiarity and perusing cognizance after their interest in SEM-R as contrasted and accomplishment among students partaking in other reading instruction.

This research joined multi-site bunch randomized plan. The example remembered 2,150 6th to eighth-grade understudies for 47 homerooms in four center schools. Pretest and posttest information were gathered on students' understanding familiarity and appreciation. Given the settled idea of the information, the researchers used Hierarchical Linear Modeling (HLM) techniques to explore the impacts of the SEM-R intercession on these understanding results.

The SEM-R was carried out in four center schools, which were chosen for investment in this examination dependent on school size and socioeconomics. All schools serve high rates of students from low-pay foundations, with a scope of about half to about 80% of students qualified free of charge or decreased lunch in the various schools. At the hour of determination, all schools' most as of late detailed accomplishment information demonstrated that roughly 60% of students or less accomplished finishing levels on state understanding assessments. Table below for some segment and testing data on the schools at the hour of their enrollment to the investigation. Schools with at any rate two and ideally at least three perusing/language expressions instructors per grade level were chosen. Altogether, 2,150 students and 47 teachers took an interest in the

research.

Table 1. School Demographics at Study Initiation.

School	% minority			Reading performance	
	% African American	% Hispanic	% low SES	% at proficient level	% at advanced level
East MS	35.1	33.2	47.7	56	7
West MS	22.8	46.4	79	48	6
South MS	66.7	NA	76.9	54	7
North MS	67.5	17.5	66.2	34.7	(not reported)

Note. SES = socioeconomic status; MS = Middle School.

Figure 4.6 School Demographic at Study Initiation

To inspect the distinctions in reading fluency and comprehension across informative gatherings at the four center schools, the researchers led a progression of staggered models using HLM Adaptation 6.04). The result factors remembered for the investigations were the postassessment scores on ORF measures and on the GMRT. The connection between's the familiarity measure and the GMRT (at posttest) was .48. Identity, sex, skilled status, and preassessment scores filled in as students level covariates. Tables below give the ORF and GMRT unmistakable measurements for the pre-and postassessments. Given the little Level 2 example size (J = 47 classroom), they utilized confined greatest probability assessment.

School, grade	Treatment group			Control group		
	Prefluency M (SD)	Postfluency M (SD)	n	Prefluency M (SD)	Postfluency M (SD)	n
East MS						
Grade 7	133.25 (24.69)	144.38 (25.92)	154	130.28 (23.26)	144.99 (22.33)	144
Grade 8	133.93 (26.40)	148.10 (26.57)	120	136.90 (26.64)	146.30 (28.13)	135
West MS						
Grade 6	129.42 (32.27)	149.17 (33.71)	168	127.38 (35.00)	143.52 (36.87)	84
Grade 7	132.76 (26.04)	149.47 (27.83)	190	130.00 (27.22)	142.21 (27.53)	74
Grade 8	144.29 (29.22)	159.21 (31.12)	197	139.15 (29.08)	150.12 (28.18)	108
South MS						
Grade 6	141.94 (23.34)	155.39 (26.59)	47	129.00 (28.63)	137.63 (29.37)	48
Grade 7	143.79 (29.87)	155.51 (30.08)	38	136.43 (23.56)	139.05 (24.01)	28
Grade 8	131.83 (16.50)	148.09 (18.41)	42	147.95 (28.95)	140.41 (27.14)	43
North MS						
Grade 6	133.82 (29.44)	148.27 (34.01)	108	121.06 (31.62)	138.26 (33.34)	68
Grade 7	143.11 (32.32)	149.38 (30.10)	57	136.87 (25.80)	147.69 (23.51)	46
Grade 8	128.41 (30.53)	137.26 (27.84)	58	130.46 (29.00)	142.31 (32.46)	54

Note. MS = Middle School.

Figure 4.7 Treatment and Control Group

The researchers discovered genuinely huge contrasts preferring the SEM-R treatment bunch in oral reading fluency at two of the four schools. Be that as it may, there were no measurably huge contrasts between the treatment and control students on reading comprehension. scores in four schools and expansions in familiarity at two of the four schools. The context of the study, however, demonstrated that we could implement SEM-R activities, including differentiated conferences and limited group instruction in reading, in place of other reading instruction several days per week at all schools with no decrease in fluency or comprehension scores in four schools and increases in fluency at two of the four schools. These discoveries, showing treatment impact of SEM-R in some school settings and comparable execution among treatment and control in others, are reliable with past research on the SEM-R.

Results showed the impact in reading comprehension that is the intervention resulted in similar or higher scores for reading fluency and similar scores for reading comprehension between the groups, despite the diminished direct instruction provided in the intervention as compared with regular reading classes. Teachers were able to replace whole- and small-group instruction with differentiated individual conferences and increased independent student reading time without detriment to achievement scores. The study also indicates that this approach, involving independent, self-selected reading, coupled with individualized instructional support, is at least as effective as more traditional approaches in the middle school reading classroom as Tomlinson (1999) said students' interest in one of the important factor in differentiated instruction. SEM-R approach providing for applying interest of the students.

B. Discussion

After the data has been obtained and in the process like the description above, the researcher has written and analyzed the data that has been obtained at the findings.

A. How does differentiated instruction have an impact on reading comprehension for secondary school?

As has been previously shown, only 3 articles from more than 250.000 found that addressed aspects of implementing differentiated instruction and its relation with reading comprehension. Two of the articles (Ruth Boelens, Michiel Voet &

Bram De Wever, 2018 and Lisbeth M. Brevik, Ann Elisabeth Gunnulfsen & Joseph S. Renzulli, 2017) focused on general definitions and purposes and perspectives of differentiated instruction. In addition, in just one article (Catherine A. Little, D. Betsy McCoach & Sally M. Reis, 2014), the authors demonstrate a positive impact in reading comprehension due to differentiated instruction. Articles provide examples, teacher's procedures, strategies and perspectives to follow up this kind of instruction. All the studies displayed that there can be a positive impact in students' reading comprehension when implementing differentiated instruction in the classroom, rather than whole group instruction. For instance, differentiated instruction has an impact on EFL reading comprehension for secondary school. The strategy that Catherine A. Little, D. Betsy McCoach & Sally M. Reis (2014) used SEM-R approach. The authors reported some that foster reading comprehension in differentiated instruction environments. The result found that SEM-R approach has an positive impact in reading comprehension.

Next, Ruth Boelens, Michiel Voet & Bram De Wever (2018) stated that the instructor often used grouping to teach in differentiated classroom. These self-action strategies support the development of students' skill, which is as an attribute of learners, rather than learning situations. The result showed that differentiated

instruction has an impact in reading comprehension.

Lastly, Lisbeth M. Brevik, Elisabeth & Joseph S. Renzulli (2018) talked about student teachers' understanding of differentiation for high-achieving secondary school students with higher learning potential using focus group interviews of Norwegian student teachers and the author believe that differentiation is extremely important in education not only for low-achieving students, but also for high-achieving students with higher learning potential. The result found that differentiated instruction has an impact in improving reading comprehension for high learning potential.

In conclusion, the limited literature identified informs us that differentiated instruction can have an impact on EFL reading comprehension while working for secondary school, grouping and SEM-R approach is two of strategies that can we used in mixed ability classroom. Although differentiation is widely acknowledged to be an important instructional approach for all learners (Tomlinson, 2001), little experimental research has examined the use of differentiated instruction in reading.