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PERCEPTION OF MATHEMATICS TEACHERS RELATED TO QUALITY OF INTERACTION WITH STUDENTS AND STUDENT'S ACTIVITIES AT SECONDARY SCHOOL LEVEL

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ABSTRACT

This article focuses on the Factors contributing for affective mathematics teaching and its relation to students's achievement at secondary schools in Vizianagaram District. This paper mainly concentrated on teachers who handling mathematics perceived high towards Quality of Interaction with students, Quality Student related activities and Class room Environment were examined. Data were collected through a survey. The questionnaire was administered among the 225 mathematics teachers of secondary schools in Vizianagaram District. Subjects were selected from 100 Schools, covering 11 rural mandals (73 schools), 04 urban mandals (14 schools), 04 tribal mandals (13 schools) situated in vizianagaram District. The sample of 225 respondents was considered statistically adequate and reliable for all analytical purposes.

Key Words: Mathematics Teachers, Interaction with students, Student related Activities, Secondary School level.

INTRODUCTION

Mathematics teachers are having qualifications, experience and exposure in all components in teaching even at secondary level. Some expected results are not yielding because of students fear towards mathematics, lack of practices, lack of needed support etc., if the all the factors may function at classroom level, the impact be higher in rate. Hence, the researcher taken up this study to know the perceptions of teachers on the factors how effectively contributed for effective teaching mathematics at secondary level.

Alexander (2004) suggests that "dialogic teaching is a method that employs the power of talk to encourage and expand the children's thoughts and advance their learning and understanding. It involves both the teacher and the children, and relates to teaching across the curriculum. It is an approach that is grounded in the principles of collectively, reciprocity, cognition and observation. Dialogical teaching, therefore, requires children to be actively engaged in doing as well as talking what the lesson is about. This approach as such, is good in the teaching of mathematics where children have to handle

concrete objects and explain what they see and in tandem also learn the concepts. Dialogic teaching is characterized by certain features of classroom interaction, such as:

- Questions are structured so as to provoke thoughtful answers.
- Answers provoke further questions and are seen as the building blocks of dialogue rather than its terminal point.
- Individual teacher–child and child–child exchanges are chained into coherent lines of enquiry rather than left stranded and disconnected. In this manner, the children experience the learning process as cooperative activity".

"Mathematics is a 'second language' and should be taught as such. It constitutes formal learning of concepts that have hitherto not been frequently used and known to many of the children. Thus they would also seem to be learning a different language to the one they use at home. The conceptual aspects of mathematics learning are connected to the language. It is exclusively bound to the symbolic representation of ideas. Most of the difficulties seen in mathematics, result from underdevelopment of the language of mathematics" (Sharma, 1989).

Middleton and Goepfert (2002) state that "the methods that are used to educate teachers need to be revisited. Middleton and Goepfert (2002), Swars (2004) and Crawford and Witte (1999) support "this notion by arguing that active learning in a motivating context is the foundation on which constructivist teachers build their teaching strategies and classroom environment".

"The nature of mathematics teachers' knowledge specific to teaching mathematics is of ongoing concern in mathematics education research" (Chapman, 2015). Furthermore, "it is well known that teachers have an impact on students' achievement, and for several years mathematics education researchers have been studying teachers' content knowledge" (Levenson, 2013).

TITLE OF THE RESEARCH

In this study the problem considered is "A Study on the Factors Contributing for Affective Mathematics Teaching and its relation to Students Achievement at Secondary School Level in Vizianagaram District"

NEED AND IMPORTANCE OF THE STUDY

Mathematics has always been difficult subject. This study mainly focused to know the factors causing effective mathematics teaching at secondary level including the Quality of Interaction with Students, Quality of Students Activities, Classroom Environment and how these factors influencing on the student learning outcomes at secondary level.

Seah (2007) stated that, effective teaching is undoubtedly the most important objective in school mathematics education. Maduabum (2009) stated that, much attention had been given to research in mathematics teacher effectiveness. For, if the factors contributing high for effective mathematics teaching at secondary level, the other mathematics teachers can then consider the factors causing for effectiveness of at secondary level.

REVIEW OF RELATED LITERATURE

Sigrid Blomeke, Gabriele Kaiser, Johannes Konig Armin Jentsch (2020) studied on "Profiles of mathematics teachers' competence and their relation to instructional quality". The exploratory study was carried out with 77 secondary mathematics teachers from Germany as part of the projects TEDS Instruct and TEDS Validate. The data revealed four competence profiles that differed quantitatively and qualitatively. The profiles were related to different types of INQUA, and the relations indicate a need of strong levels of knowledge and skills for high INQUA but a lesser relevance of learning beliefs related to the dynamic nature of mathematics. In addition, the results indicate a need of a stronger subject-specific operationalization of INQUA in contrast to previously dominating generic conceptualizations.

Charles Y. C. Yeh, et al., (2019) studied on "Enhancing achievement and interest in mathematics learning through Math-Island". This study describes how the researchers designed a game-based learning environment, called Math-Island, by incorporating the mechanisms of a construction management game into the knowledge map of the elementary mathematics curriculum. The researchers also report an experiment conducted with 215 elementary students for 2 years, from grade 2 to grade 3. In this experiment, in addition to teacher-led instruction in the classroom, students were directed to learn with Math-Island by using their own tablets at school and at home. As a result of this experiment, the researchers found that there is an increase in students' mathematics achievement, especially in the calculation and word problems. Moreover, the achievements of low-achieving students in the experimental school outperformed the low-achieving students in the control school (a

control group in another school) in word problems. Moreover, both the low-achieving students and the high-achieving students in the experimental school maintained a rather high level of interest in mathematics and in the system.

Martha Tapia, (2004) studied on "An Instrument to Measure Mathematics Attitudes". This article is a report of the development of a new instrument to measure students' attitudes toward mathematics, and to determine the underlying dimensions of the instrument by examining the responses of 545 students. The data represent all grade levels and subjects of the secondary mathematics curriculum. The reliability coefficient alpha was .97. A maximum likelihood factor analysis with a varimax rotation yielded four factors: selfconfidence; value of mathematics; enjoyment of mathematics; and motivation. Psychometric properties were sound and the instrument, Attitudes Toward Mathematics Inventory (ATMI), can be recommended for use in the investigation of students' attitudes towards mathematics.

OBJECTIVES OF THE STUDY

1. To study the perceptions of Mathematics teachers towards Quality of Interaction with Students basing on their socio-economic variables viz., Gender (Male / Female), Age (below 35 / 35 to 45 / above 45), General Qualification (Degree/ PG), Professional Qualification (B.Ed., / M.Ed.,), Teaching Experience (below 10 / 10 to 20/ above 20), Marital Status (Married / Unmarried), School Management (Government/ ZPP/ Municipal) and Locality (Urban / Rural/ Tribal).
2. To study the perceptions of Mathematics teachers towards Quality of Students Activities basing on their socio-economic variables viz., Gender (Male / Female), Age (below 35 / 35 to 45 / above 45), General Qualification (Degree/ PG), Professional Qualification (B.Ed., / M.Ed.,), Teaching Experience (below 10 / 10 to 20/ above 20), Marital Status (Married / Unmarried), School Management (Government/ ZPP/ Municipal) and Locality (Urban / Rural/ Tribal).
3. To study the perceptions of Mathematics teachers towards Classroom Environment basing on their socio-economic variables viz., Gender (Male / Female), Age (below 35 / 35 to 45 / above 45), General Qualification (Degree/ PG), Professional Qualification (B.Ed., / M.Ed.,), Teaching Experience (below 10 / 10 to 20/ above 20), Marital Status (Married / Unmarried), School Management (Government/ ZPP/ Municipal) and Locality (Urban / Rural/ Tribal).

HYPOTHESIS OF THE STUDY

1. There is no significant difference in the perceptions of mathematics teachers towards Quality of Interaction with Students basing on their socio-economic variables viz., Gender (Male / Female), Age (below 35 / 35 to 45 / above 45), General Qualification (Degree/ PG), Professional Qualification (B.Ed., / M.Ed.,), Teaching Experience (below 10 / 10 to 20/ above 20), Marital Status (Married / Unmarried), School Management (Government/ ZPP/ Municipal) and Locality (Urban / Rural/ Tribal).
2. There is no significant difference in the perceptions of mathematics teachers towards Quality of Students Activities basing on their socioeconomic variables viz., Gender (Male / Female), Age (below 35 / 35 to 45 / above 45), General Qualification (Degree/ PG), Professional Qualification (B.Ed., / M.Ed.,), Teaching Experience (below 10 / 10 to 20/ above 20), Marital Status (Married / Unmarried), School Management (Government/ ZPP/ Municipal) and Locality (Urban / Rural/ Tribal).
3. There is no significant difference in the perceptions of mathematics teachers towards Classroom Environment basing on their socio-economic variables viz., Gender (Male / Female), Age (below 35 / 35 to 45 / above 45), General Qualification (Degree/ PG), Professional Qualification (B.Ed., / M.Ed.,), Teaching Experience (below 10 / 10 to 20/ above 20), Marital Status (Married / Unmarried), School Management (Government/ ZPP/ Municipal) and Locality (Urban / Rural/ Tribal).

SAMPLE DESIGN AND SAMPLING TECHNIQUE

The questionnaires were administered among the Mathematics Teachers of Secondary schools in Vizianagaram district with a view to getting the whole sample base and better results. Subjects were selected from 100 schools covering ten rural mandals (73 schools), four urban localities (14 schools) and two tribal mandals (13 schools) situated in Vizianagaram district. The investigator personally approached and distributed the questionnaires to respondents. The purpose and procedures for filling out the questionnaires were personally explained to the Mathematics Teachers who acted as respondents. The investigator selected Secondary Schools covering Government, Zilla Parishad and Municipal in selecting the respondents. The investigator selected eleven rural mandals viz., Bobbili , Denkada, Gurla, Nellimarla, Parvathipuram, Seethanagaram, Vizianagaram, Makkuva, Ramabadrapuram, Mentada and Gantyada and four from urban locality viz., Bobbili, Parvathipuram, Vizianagaram and Nellimarla, whereas for tribal locality, the researcher selected G.L.Puram, Jiyyammavalasa, Komarada and Kurupam mandals for this study purpose.

TOOL DESCRIPTION

Drawing upon the experiences, observations and the available literature a preliminary pre-test questionnaire was designed for collection of data from the prospective respondents. The tool consists of 112 items totally.

CONSTURCTION OF TOOL

The researcher, selected 15 areas viz., 1) Substantiality of Teaching, 2)Quality of Teachers Presentations, 3)Receptivity on the Students Ideas and Contribution, 4) Use of Teaching Methods, 5) Use of ICT (Information Communication Technology), 6) Quality of Interaction with Students, 7) Quality of Students Activities, 8) Classroom Environment, 9) Conduct and Return of Evaluation Material, 10) Quality of Appraisal Report, 11) Quality of Assignment enrichment Activities, 12) Students Performance Appraisal, 13) Performance of the Teacher, 14) Professional Development of Teacher, and 15) Problems in the Teaching Mathematics. It is an instrument designed for self- rating of the Mathematics Teachers opinion of the degree to which they feel on the perceptions towards Factors Contributing for Affective Mathematics Teaching at Secondary Level. The statements were given in the questionnaire studied by the investigator against the criterion of its applicability on the perceptions of respondents. Further, a preliminary survey was conducted for suggestions, the suggestions given by the experts were taken in to consideration and modified the statements as suggested to measure the reliability of the test.

STATASTICAL TECHNIQUES USED

The statistical techniques used mainly for analytical purposes were means, standard deviations, ‘t’ test and ‘F’ test (ANOVA) were the technique deployed. To find out inter relationships in between the areas on the perceptions of respondents, product moment correlation coefficients were calculated from obtained scores.

Table - 1: Mean, SD, and ‘t’/F Values on the perceptions of Mathematics Teachers with respect to Quality of Interaction with Students.

Variable	Category	N	Mean	SD	t'/'F'-Value	p-value
Gender	Male	164	48.13	4.31	0.77 NS	0.44
	Female	61	48.60	3.41		
Age	Below 35	5	47.20	3.27	1.29 NS	0.28
	35 to 45	99	48.73	3.34		
	Above 45	121	47.90	4.60		
General Qualification	Degree	162	48.09	4.33	0.80 NS	0.42
	PG	63	48.58	3.30		
Professional Qualification	B.Ed.,	214	48.41	3.19	2.67**	0.00
	M.Ed.,	11	45.09	11.99		
Teaching Experience	Below 10	24	48.33	2.66	6.23**	0.00
	10 to 20	102	49.22	3.17		

	Above 20	99	47.23	4.89		
Marital Status	Married	218	48.27	4.12	0.45 NS	0.66
	Unmarried	7	47.57	2.37		
Management	Government	18	49.23	3.32	3.01*	0.03
	ZP	184	48.07	4.21		
	Municipal	23	49.59	2.43		
Locality	Urban	42	48.39	4.16	11.04**	0.00
	Rural	156	49.18	2.88		
	Tribal	27	43.25	2.49		

Table -1 shows that, the mean perception scores of teachers according to their professional qualification with respect to Quality of Interaction with Students**,** the mean opinion score of B.Ed., qualified category respondents was 48.41 whereas, it was M.Ed., qualified category respondents was 45.09 and the SD values were 3.19 and 11.99 respectively. The derived t – value was 2.67 and the p-value was 0.00, which was statistically significant at 0.01 level. It shows that, there is a significant difference between the perceptions of teachers basing on their professional qualifications and B.Ed., qualified category teachers expressed high perceptions towards Quality of Interaction with Students than that of M.Ed., qualified category teachers.

With regard to Teaching Experience, the mean opinion scores of teachers for below 10 years teaching experience was 48.33 whereas it is for the 10 to 20 years teaching experience was 49.22 and it was for above 20 years teaching experience was 47.23 and the SD values were 2.66, 3.17 and 4.89 respectively. The 'F'-value was 6.23 and the p-value was 0.00 which was statistically significant at 0.01 level. It shows that, there is a significant difference among the perceptions of teachers based on their teaching experience and 10 to 20 years teaching experience category teachers perceived high towards Quality of Interaction with Students than that of below 10 and above 20 years teaching experience teachers.

With regard to School Management, the mean opinion scores of teachers working in Government school was 49.23 whereas it is for the Zilla Parishad School was 48.07 and it was for teachers working Municipal school was 49.59 and the SD values were 3.32, 4.21 and 2.43 respectively. The 'F 'value was 3.01 and the p-value was 0.03 which was statistically significant at 0.05 level. It shows that, there is a significant difference among the perceptions of teachers based on their school management and teachers working in Municipal schools perceived high towards Quality of Interaction with Students than that of teachers working in Government and Zilla Parishad schools.

With regard to Locality, the mean opinion scores of teachers belong to urban area was 48.39 whereas it is for the rural area was 49.18 and the tribal area teachers was 43.25 and the SD values were 4.16, 2.88 and 2.49 respectively. The 'F'-value was 11.04 and the p-value was 0.00 which was statistically significant at 0.01 level. It shows that, there is a significant difference among the perceptions of teachers based on their locality and rural area category teachers perceived high towards Quality of Interaction with Students than that of urban and tribal area category teachers.

It was noticed that, no significant difference was found among the perceptions of teachers based on socio-economic variables i.e., Gender, Age, General Qualification and Marital Status towards Quality of Interaction with Students. The 't'/'F' values are 0.77, 1.29, 0.80 and 0.45 and the p-values are 0.44, 0.28, 0.42 and 0.66 which are not significant and they perceived similar opinion.

Table – 2: Mean, SD, and 't'/F Values on the perceptions of Mathematics Teachers with respect to Quality of Students Activities.

Variable	Category	N	Mean	SD	t'/'F'-Value	p-value
Gender	Male	164	22.96	2.80	2.06*	0.04
	Female	61	23.68	1.86		
Age	Below 35	5	22.40	2.97	0.81 NS	0.44
	35 to 45	99	23.38	2.33		
	Above 45	121	23.00	2.77		
General Qualification	Degree	162	23.07	2.71	0.66 NS	0.51
	PG	63	23.32	2.25		
Professional Qualification	B.Ed.,	214	23.30	2.24	3.77**	0.00
	M.Ed.,	11	20.36	5.84		
Teaching Experience	Below 10	24	22.54	2.54	5.04**	0.01
	10 to 20	102	23.75	2.11		
	Above 20	99	22.70	2.93		
Marital Status	Married	218	23.14	2.61	0.58 NS	0.56
	Unmarried	7	23.71	2.06		
Management	Government	18	23.54	1.85	0.22 NS	0.81
	ZP	184	23.11	2.65		
	Municipal	23	23.35	2.45		
Locality	Urban	42	23.18	2.64	12.90**	0.00
	Rural	156	24.05	1.56		
	Tribal	27	19.92	1.93		

Table -2 Shows that, the mean perception scores of teachers according to their gender with respect to Quality of Students Activities, for male category teachers was 22.96, whereas it is for female category teachers was 23.68 and the SD values were 2.80 and 1.86 respectively. The 't'- value was 2.06 and the p-value was 0.04, which was statistically significant at 0.05 level. It shows that, there is a significant difference between the perceptions of teachers based on their gender and female category teachers perceived high towards Quality of Students Activities than that of male category teachers.

With regard to Professional Qualification, the mean opinion score of B.Ed., qualified category respondents was 23.30 whereas, it was M.Ed., qualified category respondents was 20.36 and the SD values were 2.24 and 5.84 respectively. The derived t – value was 3.77 and the p-value was 0.00, which was statistically significant at 0.01 level. It shows that, there is a significant difference between the perceptions of teachers basing on their professional qualifications and B.Ed., qualified category teachers expressed high perceptions towards Quality of Students Activities than that of M.Ed., qualified category teachers.

With regard to Teaching Experience, the mean opinion scores of teachers for below 10 years teaching experience was 22.54 whereas it is for the 10 to 20 years teaching experience was 23.75 and it was for above 20 years teaching experience was 22.70 and the SD values were 2.54, 2.11 and 2.93 respectively. The 'F'-value was 5.04 and the p-value was 0.01 which was statistically significant at 0.05 level. It shows that, there is a significant difference among the perceptions of teachers based on their teaching experience and 10 to 20 years teaching experience category teachers perceived high towards Quality of Students Activities than that of below 10 and above 20 years teaching experience teachers.

With regard to Locality, the mean opinion scores of teachers belong to urban area was 23.18 whereas it is for the rural area was 24.05 and the tribal area teachers was 19.92 and the SD values were 2.64, 1.56 and 1.93 respectively. The 'F'-value was 12.90 and the p-value was 0.00 which was statistically significant at 0.01 level. It shows that, there is a significant difference among the perceptions of teachers based on their locality and rural area category teachers perceived high towards Quality of Students Activities than that of urban and tribal area category teachers.

It was noticed that, no significant difference was found among the perceptions of teachers based on socio-economic variables i.e., Age, General Qualification, Marital Status and Management towards Quality of Students Activities. The 't'/'F' values are 0.81, 0.66, 0.58, and 0.22 and the p-values are 0.44, 0.51, 0.56 and 0.81 which are not significant and they perceived similar opinion.

Table - 3: Mean, SD, and 't'/F Values on the perceptions of Mathematics Teachers with respect to Classroom Environment.

Variable	Category	N	Mean	SD	t'/'F'-Value	p-value
Gender	Male	164	36.41	3.84	0.69 NS	0.49
	Female	61	36.80	3.19		
Age	Below 35	5	35.20	3.96	0.54 NS	0.58
	35 to 45	99	36.74	3.19		
	Above 45	121	36.41	4.03		
General Qualification	Degree	162	36.57	3.66	0.42 NS	0.68
	PG	63	36.34	3.69		
Professional Qualification	B.Ed.,	214	36.68	3.17	2.81**	0.00
	M.Ed.,	11	33.55	8.85		
Teaching Experience	Below 10	24	36.13	2.47	3.04*	0.03
	10 to 20	102	37.07	2.96		
	Above 20	99	36.07	4.45		
Marital Status	Married	218	36.49	3.70	0.97 NS	0.33
	Unmarried	7	37.86	2.54		
Management	Government	18	37.38	2.53	0.56 NS	0.57
	ZP	184	36.43	3.77		
	Municipal	23	37.00	3.22		
Locality	Urban	42	36.86	3.57	13.75**	0.00
	Rural	156	36.63	2.97		
	Tribal	27	31.42	3.63		

Table-3 shows that, the mean perception scores of teachers according to their Professional Qualification with respect to Classroom Environment, for B.Ed., qualified category respondents was 36.68 whereas, it was M.Ed., qualified category respondents was 33.55 and the SD values were 3.17 and 8.85 respectively. The derived t – value was 2.81 and the p-value was 0.00, which was statistically significant at 0.01 level. It shows that, there is a significant difference between the perceptions of teachers basing on their professional qualifications and B.Ed., qualified category teachers expressed high perceptions towards Classroom Environment than that of M.Ed., qualified category teachers.

With regard to Teaching Experience, the mean opinion scores of teachers for below 10 years teaching experience was 36.13 whereas it is for the 10 to 20 years teaching experience was 37.07 and it was for above 20 years teaching experience was 36.07 and the SD values were 2.47, 2.96 and 4.45 respectively. The 'F'-value was 3.04 and the p-value was 0.03 which was statistically significant at 0.05 level. It shows that, there is a significant difference among the perceptions of teachers based on their teaching experience and 10 to 20 years teaching experience category teachers perceived high towards Classroom Environment than that of below 10 and above 20 years teaching experience teachers.

With regard to Locality, the mean opinion scores of teachers belong to urban area was 36.86 whereas it is for the rural area was 36.63 and the tribal area teachers was 31.42 and the SD values were 3.57, 2.97 and 3.63 respectively. The 'F'-value was 13.75 and the p-value was 0.00 which was statistically significant at 0.01 level. It shows that, there is a significant difference among the perceptions of teachers based on their locality and urban area category teachers perceived high towards Classroom Environment than that of rural and tribal area category teachers.

It was noticed that, no significant difference was found among the perceptions of teachers based on socio-economic variables i.e., Gender, Age, General Qualification, Marital Status and Management towards Classroom Environment. The 't'/'F' values are 0.69, 0.54, 0.42, 0.97 and 0.56 and the p values are 0.49, 0.58, 0.68, 0.33 and 0.57 which are not significant and they perceived similar opinion.

FINDINGS AND CONCLUSIONS

1. With regard to Quality of Interaction with Students, a significant difference was found among the perceptions of teachers based on their socio-economic variables i.e., Professional Qualification, Teaching Experience, School Management and Locality. According to their professional qualification, B.Ed., qualified category teachers expressed high perceptions that of M.Ed., qualified category teachers whereas, according to their teaching experience, 10 to 20 years teaching experience category teachers perceived high than that of below 10 and above 20 years teaching experience teachers. According to their school management, Municipal school teachers perceived high than that of Government and Zilla Parishad school teachers and also based on their locality, and rural area category teachers perceived high than that of urban and tribal area category teachers.
2. It was noticed that, no significant difference was found among the perceptions of teachers based on socio-economic variables i.e., Gender, Age, General Qualification and Marital Status towards Quality of Interaction with Students and they perceived similar opinion.
3. With regard to Quality of Students Activities, a significant difference was found among the perceptions of teachers based on their socio-economic variables i.e., Gender, Professional Qualification, Teaching Experience and Locality. According to their gender, female category teachers perceived high than that of male category teachers, whereas according to their professional qualification, B.Ed., qualified category teachers expressed high perceptions that of M.Ed., qualified category teachers. According to their teaching experience, 10 to 20 years teaching experience category teachers perceived high than that of below 10 and above 20 years teaching experience teachers and also based on their locality, and rural area category teachers perceived high than that of urban and tribal area category teachers.
4. It was noticed that, no significant difference was found among the perceptions of teachers based on socio-economic variables i.e., Age, General Qualification, Marital Status and Management towards Quality of Students Activities and they perceived similar opinion.
5. With regard to Classroom Environment, a significant difference was found among the perceptions of teachers based on their socio-economic variables i.e., Professional Qualification, Teaching Experience and Locality. According to their professional qualification, B.Ed., qualified category teachers expressed high perceptions that of M.Ed., qualified category teachers whereas according to their teaching experience, 10 to 20 years teaching experience category teachers perceived high than that of below 10 and above 20 years teaching experience teachers and also based on their locality, and rural area category teachers perceived high than that of urban and tribal area category teachers.
6. It was noticed that, no significant difference was found among the perceptions of teachers based on socio-economic variables i.e., Gender, Age, General Qualification, Marital Status and Management towards Classroom Environment and they perceived similar opinion.

REFERENCES:

Abebaw, Belete (2014). Students' Affective Factors that Affect Mathematics Achievement in Lideta Sub-CityGovernmentalsecondaryschools.

Alenka Brezavsccek (2020). Factors Influencing Mathematics Achievement of University Students of Social Sciences. Mathematics 2020, 8, 2134; doi:10.3390/math8122134.

Charles Y. C. Yeh, et al., (2019). Enhancing achievement and interest in mathematics learning through Math-Island. Research and Practice in Technology Enhanced Learning volume 14, Article number: 5 (2019)

Martha Tapia, (2004). An Instrument to Measure Mathematics Attitudes.

Sigrid Blomeke, Gabriele Kaiser, Johannes Konig Armin Jentsch (2020). Profiles of mathematics teachers' competence and their relation to instructional quality.