

## **The Impact of Social Network on High School Students' Physics Homework: An Experimental Study**

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### **Abstract**

Learning physics is often considered as a difficult task by teachers and students. Homework is introduced as a way to tackle this difficulty. But most of the students are not motivated enough to do their homework. Therefore, finding some motivational factors to encourage students in completing their homework seems necessary. Supervisions by skilled teachers and web-based homework were frequently cited as typical solutions to improve their motivational factors. Thus, this study focuses on investigating the benefits of using Facebook as a motivational web-based tool and as a bridge between the teachers and students to assist students in completing their homework. The present study was conducted in an Iranian high school with 39 students in Year 11. A 'Pre-Experimental' design was used to conduct the research. A Facebook page including five sets of physics homework, on the topic of capacitor, was developed and distributed among the participants. The level of students' academic performances and their perception regarding the role of Facebook in supporting their physics homework was measured through different instruments. The obtained data was analysed by calculating the central tendency and conducting a t-test, using Microsoft Excel and SPSS software. The findings show that students have a positive tendency towards using Facebook to support their physics homework completion. Their level of academic performance was also enhanced significantly after using the so called Facebook page. The results of this project could be used to replace the traditional pen and paper homework system to motivate the students in physics homework completion and improve their physics learning.

Keywords: Motivation, Facebook, Physics homework completion, Physics learning.

### **1. Introduction**

Several studies show homework is one of the most important factors to help the students in the learning process. Homework helps to reinforce students in their education progression and practicing skills (Kelley, 2006) (Grodner & Rupp, 2013). Many instructors assert homework as a contribution to the improvement of learning and academic accomplishment (Hong, Wan, & Peng, 2011). It especially has a specific affect in learning of physics' concepts and helps physics' problem solving (Park, Lee, Jeong, Yuk, and Lee 2009). Findings demonstrate that homework completion problems don't resolve across time and students often deny doing their duty (Langberg et al., 2016). Teachers have long experienced the frustration of students who do not or will not complete their homework (Wilson & Rhodes, 2010). Students enlighten several reasons for their denying. As an example: they believe that homework does not have value because teachers do not really care about collecting, reading or marking their homework, let alone using the

result for an evaluation of the students' improvement (Hinchey, 1996). Some of the students asserted their homework is irrelevant to the lesson of the day (Darling-Hammond & Olivia, 2006). A number of students feel that homework is boring; some others do their homework only to satisfy their parents and/or their teachers (Xu, 2010). It seems that finding some motivational factors to stimulate the students in their entire learning process generally, and doing homework particularly, would be the way of rescue. Type of motivation for doing homework is important. Students must be supported to adopt a more self-governing type of motivation (Katz, Eilot, & Nevo, 2014).

Parental support is introduced as an approach to inspire the student in homework completion. But this support is eventually going to decrease, especially when students enter high school (Bempechat *et al.*, 2011). It may be because of the lack of parents' enough knowledge (Cosden *et al.*, 2001). It appears that, students especially high school and more especial lower achieving ones need to be supervised by skilled teachers (Cosden, Morrison, Albanese, & Macias, 2001). Therefore, the need for a tool

arises; a tool that connects the teachers with students while they are doing their homework activities.

Applying computer, internet and web-based system is mentioned as some motivational tools in students' learning process. Bonham, Beichner, and Deardorff (2001) mentioned the web-based homework task as a vital situation in the teachers' toolbox. It also counts as an effective tool with potential to be used in physics' courses (Demirci, 2007). Therefore, it sounds that web-based system is powerful to make homework as interesting as possible and to encourage the students in fulfilling their homework.

Facebook is a web-based tool in which the number of students who sign-up on it, is increasing at a rate of almost 150,000 new accounts per day (Peluchette & Karl, 2010). This amount is being raised continuously (Green & Bailey, 2010). Students also are interested to have connections with their teachers as an assistant while they are using Facebook (Schwartz, 2010). Facebook has potential to be used for instructional purposes and is able to motivate the students in their homework completion (Green & Bailey, 2010). So, Facebook may act as a suitable solution and a good platform for academic use.

As a result, Facebook was chosen as our main tool of both communication and motivation. This research is to find out whether the use of Facebook can support Physics students and make them interested in doing their homework, in order to improve their learning and problem solving in Physics.

The following questions were investigated in this study:

- What is the perception of students who use Facebook in supporting their physics homework?
- Is there any difference between the students' level of academic performance before and after using Facebook to support the completion of their physics homework?

## 2. Methodology

### 2.1 Participants

A sample consists of 39 students of year-11, from an Iranian all-girls high-school in Malaysia were chosen. Convenience sampling was applied to select the sample from the population on the basis of accessibility to the researcher. The selection of the sample was made among the students who had taken physics subject.

### 2.2 Development of a Facebook Page

A Facebook page namely "Homework, in Persian language" was developed by researcher to support the students' homework completion. 5 sets of instructional material were prepared. Each set included a group of physics exercises, some important tips to help the students to complete the exercises, a video and some pictures with

relevance to the capacitors. They used as a homework material for the treatment period.

### 2.3 Instrument

The data for this research was collected using two sets of questioners, one pre-test, one post-test and a set of interview questions.

A questionnaire named "Basic Information-Q" comprised of 8 close-ended questions in the form of binary scale (yes or no questions). It was designed to investigate the background information of students about their accessibility to the computer and internet. The students' scientific usage of internet and Facebook was also explored by this questionnaire.

A questionnaire namely "Perception-Q" comprised of 26 multiple-choice questions in the 5-likert scale form. It was used to collect the students' perception about the effectiveness of using Facebook in physics homework completion aiming to find out the answer to the first research question.

Capacitor Concept tests (pre-test and post-test) consists of 12 questions; including 5 multiple-choice and 7 open-ended questions. Pre-test was used to measure the students' initial knowledge of physics on capacitors and its related issues. The same set of questions was used for the post-test. The results of pre and post tests were compared to measure if there are any changes in the physics academic level of students. It used to find out the answer to the second research question. Five open-ended interview questions were selected to support all the findings and to improve the quality of the so called Facebook page in the future.

## 3. Research Design and Procedure

A quantitative methodology of investigation is utilized in this study. The 'Pre-Experimental', one group pre-test/post-test, is used to design the project in which the pre-test scores of one group are compared to their post-test result. The quantitative data is collected by longitudinal strategy, before and after the treatment period.

The sample of the students was selected from the target schools. "Homework in Persian language" Facebook page, was developed. All the instruments used to carry out the project were prepared. After piloting, the instruments were improved and ready for the actual study.

The data were collected using Basic Information-Q and Capacitor Concept pre-test. After that the five sessions of treatment is started at the same day for all chosen students and were continued for three next weeks, subsequently. In the treatment period all students were requested to join to the "Homework in Persian language" page to do the exercises and to use the educational materials available on the page.

They asked to join to a Facebook account to be aware of the Facebook page activity. They were also able to chat with the researcher, three times per week, one hour in each session in the specific time. They were able to ask any question related to given homework if they would. The

treatment period was followed by the second stage of data collection using Capacitor Concept post-test. Later on, the second questionnaire (Perception-Q) was carried out. The last stage of data collection was interview with 10 of the students from chosen sample who they volunteered to participate as interviewees. A voluntarily method was chosen in order to create a stress free environment to answer to the interview questions.

#### 4. Methods of Analysis

Data collection was completed. The data obtained from Basic Information-Q was tabulated in the form of frequency and percentage. It represents the number of the students who have access to the computer and internet and used these facilities for academic purpose earlier. The result of Information-Q would help the researcher to understand if students need training for usage of Facebook as a selected tool to conduct the project.

The Central tendency of all the marks taken from pre-test and post-test which were upon 20 was calculated. An inferential analysis by conducting a t-test also was done to compare the taken results from the students' pre and post-tests, in order to recognize if there is any significant change in the students' academic performance after the treatment.

By using the 5 Likert-scale (from strongly agree=5 to strongly disagree=1), all data from Perception-Q is categorized and tabulated in the form of frequency and percentage. Using descriptive analysis, the Mean of all categories of questions was calculated to compare with the neutral state (have no opinion = 3). It used to show if there is any positive or negative tendency in students' perception toward the use of Facebook as an academic tool to support them in homework completion.

The data collected from interview questions, was coded and classified. The percentage and frequency of each category was calculated to support the obtained data from so called instruments. Microsoft Excel and SPSS software was used in order to do all statistical analyses. Analyses method is briefly represented in Table 1.

#### 5. Findings

39 students sat to answer the questions of Basic Information-Q which is designed to draw out the personal information about the usage of computer, internet and Facebook. The result, gained from the students' responses as shown in Table 2, illustrates that all respondents owned computers at home. Nearly all of them had internet connections. From all entire of students, 95% were familiar to social networking websites and 85% had Facebook accounts. Nevertheless, 83% of them were interest in using Facebook, but approximately half of them used Facebook regularly. 88% of the respondents used internet academically earlier but only 39% of them used Facebook for the purpose of studies. These showed that the students

may be encouraged to use Facebook academically with a purposeful planning.

The pre-test was conducted at the first day of the survey. The full mark of the test was 20. After marking the students' paper, the mean and standard deviation of their marks were calculated as shown in Table 3. The post-test was conducted after the treatment period. The students' papers were marked. The mean and standard deviation of their marks (Table 4) was calculated to help assess to the students' level of academic performance after the treatment; also to be compared to the results of the pre-test, looking for academic enhancements.

A paired-sample t-test was conducted to weigh against the average scores of students (obtained from pre and post Capacitor Concept tests) before and after the treatment period to find out if there is any significant difference between their scores. The result as shown in Table 5, points up significant difference in the scores of students in the pre-test ( $M = 13.71$ ,  $SD = 3.08$ ) and post-test ( $M = 16.07$ ,  $SD = 2.98$ );  $t(39) = 6.574$ ,  $p = 0.000$ . These results suggest that using Facebook to support the students' physics homework completion have a positive effect on the students' academic performances.

The outcome proves the answer to the second research's questions and proposes that when students use Facebook page to support the physics' homework completion, their average of scores in physics' exam increased.

Designing the Perception-Q including 26 multiple-choice questions was to find out the students' attitude toward using Facebook to support their physics homework completion. The questions of perception-Q are tabulated in Table 6 to 10.

According to the gained results from Table (6) for relative questions (1 to 3), 74.3% of students have positive attitude toward the necessity of the presence of a teacher, because they have problems when doing their homework by their own. 66.6% of them agreed or strongly agreed that their parents are not able to help them while doing their homework, especially in complicated subject like physics.

The total mean ( $M_{total} = 3.81$ ) for relative questions (4 to 7) shows the students' perception regard to the role of Facebook in connecting the teacher and students when students doing their homework, have been more affirmative than neutral state ( $M=3$ ) (Table 7).

By Table 8, questions 8 to 18 and 22 elicited the students' attitude toward the practical benefits of Facebook in doing physics homework. As the mean of students' responses to the mentioned questions was more than 3 (Neutral state), so it can be said that Facebook may be a beneficial practical tool in physics homework completion.

Questions 19 to 21 found out the students' attitude toward the economic and time saving role of Facebook in homework completion. The total mean of students' responses to the 3 mentioned questions ( $M = 3.05$ ), seem to show little positive tendency towards the use of Facebook as a cost-effective and time saving tool (Table 9).

**Table 1**

Data analysis methods

Research Question	Instrument	No. of Respondents	Data Analysis Method
1. What is the perception of students who use Facebook in supporting their physics homework?	Basic Information- Q	39	• Descriptive analysis calculating the percentage and frequency
	Perception-Q	39	• Descriptive analysis calculating the central-tendency , percentage and frequency
	Interview questions	10	• Coding the data. Descriptive analysis calculating the percentage and frequency
2. Is there any difference between the students' level of academic performance before and after using Facebook to support the completion of their physics homework?	Capacitor Concept Tests (pre-test and post-test)	39	• Descriptive analysis using the central-tendency • Inferential analysis using a t-test

**Table 2**

Data obtained from Basic Information-Q (n=39)

No	Statement	Yes		No	
		n	%	n	%
1	Do you have access to a computer at home?	39	100%	-	0%
2	Does your computer at home have an internet connection?	37	95%	2	5%
3	Have you ever used the internet for educational purposes before?	34	88%	5	12%
4	Are you familiar with social networking websites (such as Facebook, Twitter, etc) before?	37	95%	2	5%
5	Do you have a Facebook account?	33	85%	6	15%
6	Do you find it interesting to use Facebook?	32	83%	7	17%
7	Have you used Facebook for educational purposes before?	14	39%	25	61%
8	Do you use Facebook regularly?	21	56%	18	44%

**Table 3**

Descriptive analysis of the marks obtained from the pre-test (n= 39)

Minimum mark out of 20	Maximum mark out of 20	Mean	Standard Deviation (SD)
7	18	13.7115	3.08196

**Table 4**

Descriptive analysis of the marks obtained from the post-test (n= 39)

Minimum mark out of 20	Maximum mark out of 20	Mean	Standard Deviation(SD)
8	20	769	2.98414

**Table 5**

Paired-sample t-test between the pre- and post-tests

Variable	Paired Differences					t	df	Significant (2-Tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval Of The Difference				
				Lower	Upper			
Pre- & post-tests	2.36538	2.24696	0.35980	1.63700	3.09377	6.574	39	0.000

Questions 23 to 26 investigate the students' perception toward the role of Facebook in creating the cooperative learning environment. As shown in Table 10, over 60% of the respondents were confident that group work is made easier on Facebook. More than half of them claimed that messaging peers on Facebook would help improve problem solving skills while only around 13% disagreed. The respondents agreed with the statement "Facebook opens a mean in which to share ideas between students via online chat" at approximately 85% whereas there are only 5.2%

disagreed and the rest were neutral. About 85% of the respondents believed that key points and tips could be easier shared using Facebook as oppose to only 5.1% who did not agree.

By comparing the total mean of questions 23 to 26 ( $m = 3.81$ ) with the neutral state (have no opinion) it can be concluded that the students have positive perception toward the role of Facebook in creating the cooperative learning environment when they do their homework.

**Table 6**

Descriptive analyses of questions 1-3 of Perception-Q (n=39)

No	Statement	SD(1)		D(2)		N(3)		A(4)		SA(5)		M
		F	P%	F	P%	F	P%	F	P%	F	P%	
1	Some problems that occur while doing homework at home are not resolvable on your own.	1	2.6	1	2.6	8	20.5	16	41.0	13	33.3	4.00
2	Usually parents find it hard to help the student with complicated subjects like physics.	-	-	7	17.9	6	15.4	13	33.3	13	33.3	3.82
3	Access to a teacher at home would help make more use of 'Homework'.	-	-	3	7.7	5	12.8	14	35.9	17	43.6	4.15
Total mean of questions 1 to 3 = 3.99												

The scales, Strongly Agree (5), Agree (4), No opinion (3), Disagree (2) and Strongly Disagree (1), are shown with SA, A, N, D and SD respectively. **M** shows the mean of data **F** is frequency and **P** means percentage.

**Table 7**

Descriptive analyses of questions 4-7 of Perception-Q

No	Statement	SD(1)		D(2)		N(3)		A(4)		SA(5)		M
		F	P%	F	P%	F	P%	F	P%	F	P%	
4	Facebook could be used to link teachers to their students while doing homework at home.	1	2.6	6	15.4	9	23.1	18	46.2	5	12.8	3.51
5	A Facebook page dedicated to physics homework can help the students communicate and discuss their homework between themselves and their teacher.	-	-	3	7.7	7	17.9	19	48.7	10	25.6	3.92
6	A scheduled online teacher could provide real-time assistance to the students, with regards to their homework.	-	-	4	10.3	7	17.9	16	41.0	12	30.8	3.92
7	When real-time assistance is provided, students are less likely to forget their problems, since it is not postponed to the next session.	-	-	3	7.7	7	17.9	20	51.3	9	23.1	3.90
Total mean of questions 4 to 7 = 3.81												

The scales, Strongly Agree (5), Agree (4), No opinion (3), Disagree (2) and Strongly Disagree (1), are shown with SA, A, N, D and SD respectively. **M** shows the mean of data **F** is frequency and **P** means percentage.

Table 8

Descriptive analyses of questions 8 to18 and 22 of Perception-Q

No	Statement	SD(1)		D(2)		N(3)		A(4)		SA(5)		M
		F	P%	F	P%	F	P%	F	P%	F	P%	
8	Homework could be distributed on Facebook.	-	-	8	20.5	8	20.5	15	38.5	8	20.5	3.59
9	Facebook can help absentees make up lost class time and have access to the given homework.	2	5.1	3	7.7	3	7.7	21	53.8	10	25.6	3.87
10	Doing homework through Facebook would increase motivation.	5	12.8	6	15.4	17	43.6	7	17.9	4	10.3	2.97
11	Physics homework problems could be more resolved when put to share with the teacher on Facebook.	1	2.6	3	7.7	9	23.1	18	46.2	8	20.5	3.74
12	Students' are able to ask their teachers about their key problems in the privacy of the Facebook messages.	-	-	4	10.3	8	20.5	19	48.7	8	20.5	3.79
13	A teacher could occasionally message students about their Problems.	-	-	2	5.1	13	33.3	19	48.7	5	12.8	3.69
14	The teacher could discuss a common problem as a wall post, opening room for debate.	-	-	3	7.7	5	12.8	20	51.3	11	28.2	4
15	After marking their homework, the teacher can discuss any student's key problem via a private message.	-	-	4	10.3	4	10.3	25	64.1	6	15.4	3.85
16	After marking their homework, the teacher can share common problems on the Facebook page.	1	2.6	3	7.7	5	12.8	23	59.0	7	17.9	3.82
17	Educational videos and pictures could be put to share on Facebook.	1	2.6	-	-	8	20.5	18	46.2	12	30.8	4.03
18	The students can upload their homework on Facebook for their teachers' access.	-	-	6	15.4	7	17.9	17	43.6	9	23.1	3.74
22	Posting homework on Facebook will decrease the risk of forgetting to do the homework, or to passing it up physically.	3	7.7	6	15.4	8	20.5	16	41.0	6	15.4	3.41
Total mean of questions 8 to18 and 22 = 3.70												

The scales, Strongly Agree (5), Agree (4), No opinion (3), Disagree (2) and Strongly Disagree (1), are shown with SA, A, N, D and SD respectively. **M** shows the mean of data **F** is frequency and **P** means percentage.

Table 9

Descriptive analyses of questions 19 to 21 of Perception-Q

No	Statement	SD(1)		D(2)		N(3)		A(4)		SA(5)		M
		F	P%	F	P%	F	P%	F	P%	F	P%	
19	Doing homework on a computer for uploading to Facebook is easier than the traditional way, because any mistakes could be easily removed and corrected, whereas with pen and paper sometimes the even whole page needs to be replaced.	4	10.3	8	20.5	11	28.2	9	23.1	7	17.9	3.18
20	Using computer, internet, and Facebook to do homework saves time.	6	15.4	10	25.6	10	25.6	7	17.9	6	15.4	2.92
21	Using computer, internet, and Facebook to do homework is cheaper than traditional pen and paper.	3	7.7	4	10.3	22	56.4	8	20.5	2	5.1	3.05
Total mean of questions 19 to 21 = 3.05												

The scales, Strongly Agree (5), Agree (4), No opinion (3), Disagree (2) and Strongly Disagree (1), are shown with SA, A, N, D and SD respectively. **M** shows the mean of data **F** is frequency and **P** means percentage.

Table10

Descriptive analyses of questions 23 to 26 of Perception-Q

No	Statement	SD(1)		D(2)		N(3)		A(4)		SA(5)		M
		F	P%	F	P%	F	P%	F	P%	F	P%	
23	Group work is made easier on Facebook.	3	7.7	2	5.1	10	25.6	15	38.5	9	23.1	3.64
24	Messaging peers on Facebook would help improve problem solving skills.	-	-	5	12.8	11	28.2	16	41.0	7	17.9	3.64
25	Facebook opens a mean in which to share ideas between students via online chat.	1	2.6	1	2.6	4	10.3	27	69.2	6	15.4	3.92
26	Key points and tips could be easier shared using Facebook.	-	-	2	5.1	4	10.3	23	59.0	10	25.6	4.05
Total mean of questions 23 to 26 = 3.81												
Total mean of questions 1 to 26 = 3.70												

The scales, Strongly Agree (5), Agree (4), No opinion (3), Disagree (2) and Strongly Disagree (1), are shown with SA, A, N, D and SD respectively. **M** shows the mean of data **F** is frequency and **P** means percentage.

To sum up, the total mean of questions 1 to 26 from Perception-Q ( $M = 3.7 > 3$ ) (Table 10) shows a general positive tendency toward the academic use of Facebook, to support the physics homework completion by students, which it proves the answer to the first research question.

In the last section, 5 structured questions as shown in Table 11, were constructed as interview questions. 10 students volunteered to participate as interviewees. The students' responses to the interview questions were coded

and classify to different categories. The information eliciting from their answers were tabulated and the percentage of their common themes was calculated. Eliciting from the students' response to the interview questions prove that they have a positive tendency towards the academic use of Facebook in supporting their physics homework completion; this confirms the findings of the questionnaires (Basic Information-Q and Perception-Q) that answered the first research question.

Table11

The interview questions (n=10)

Number	Questions
1	What benefits or advantages would doing physics homework on Facebook bring about?
2	What harms or disadvantages would doing physics homework on Facebook, bring about?
3	How do you evaluate the "Homework, in Persian language" page?
4	What do you suggest should be done to improve the quality of Facebook (Homework, in Persian language), page?
5	Would you prefer to use Facebook for homework regarding other subject in addition to physics? (please explain your agree or disagreement)

## 6. Conclusion

This study focused on the measurement of the students' perception towards the use of Facebook to support their physics homework completion. The students' attitude was measured using two questionnaires (Basic Information-Q and Perception-Q). Some basic information was gained through Basic Information-Q. It was proven that all students from the sample, had access to computers. Internet was also available to the majority of them. Most of them used Facebook regularly. As a result, it was not a challenging task to persuade them towards the academic use of Facebook as a main necessity of conducting the study.

The students' perception, with regard to the necessity of the presence of a teacher, connection to their teacher via Facebook, practical benefits of Facebook, economic and time saving role of Facebook and collaborative environment created by Facebook when they are doing physics homework were measured through Perception-Q. The respondents confirmed that they need to be supported by their teacher while they are doing their physics

homework. Facebook is as a good tool to create a connection between them and their teacher. It has some practical benefits for physics homework completion. It also is able to create a cooperative atmosphere among the students. But in oppose to some previous studies, as example, Radhakrishnan et al. (2009) who mentioned the important(importance)of web-based homework systems as time-saving and cost-effective tools, the evaluations of the students' perceptions with regard to the time-saving and cost-effective role of Facebook, shows their pessimistic view.

The level of academic performance of the participants before and after the treatment period was measured through the Capacitor Concept tests. A comparison between the mean scores of the pre- and post-tests showed an academic improvement. A paired-sample analysis demonstrated that the improvement was significant. It is concluded that by using Facebook page to support the students' physics homework completion their level of academic performances (in the subject of physics) is increased.

To sum up, from the findings of this research, the students have a welcoming perception towards the

academic use of Facebook; they are also very fond of using Facebook as a homework supporting medium. Most of the students would be glad to use Facebook for subjects other than physics.

The results of this project could be used by physics teachers in the future as a new way of supporting the students' homework completion, as a replacement to the traditional pen and paper homework system; that may improve the students' physics learning.

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### References

- Bazooband, A. (2012). Social Networking in Physics Homework Completion. Master of physics education, Universiti Teknologi Malaysia, Skudai
- Bempechat, J., Li, J., Neier, S. M., Gillis, C. A., & Holloway, S. D. (2011). The Homework Experience: Perceptions of Low-Income Youth. *Journal of Advanced Academic*, 22(2), 250-278. Doi: 10.1177/1932202X1102200204
- Bonham, S., Beichner, R., & Deardorff, D. (2001). Online Homework: Does It Make a Difference? *Physics Teacher*, 39(5), 293-296. Doi: 10.1119/1.1375468;
- Cosden, M., Morrison, G., Albanese, A. L., & Macias, S. (2001). When Homework is not Homework: After-School Programs for Homework Assistance. *Educational psychologist*, 36(3), 211-221. Doi: 10.1207/S15326985EP3603\_6
- Darling-Hammond, L., & Olivia, I. (2006). If They'd Only Do Their Work! *Educational Leadership*, 63(5), 8-13. Retrieved from <http://www.ascd.org/publications/educational-leadership/feb06/vol63/num05/If-They'd-Only-Do-Their-Work!.aspx>
- Demirci, N. (2007). Developing Web-based Homework System to Evaluate Students' Homework Performance and Physics Achievement. *AIP Conference Proceedings*, 899(1), 487-488. Doi: 10.1063/1.2733249
- Green, T., and Bailey, B. (2010). Academic Uses of Facebook: Endless Possibilities or Endless Perils? *Techtrends*, 54(3), 20-22. Doi: 10.1007/s11528-010-0398-z
- Hinchey, P. (1996). Why Kids Say They Don't Do
- Grodner, A., & Rupp, N. G. (2013). The Role of Homework in Student Learning Outcomes: Evidence from a Field Experiment. *The Journal of Economic Education*, 44(2), 93-109. <http://doi.org/10.1080/00220485.2013.770334>
- Homework. *Clearing House*, 69(4), 242-245. Retrieved from <http://www.jstor.org/discover/10.2307/30189173?uid=3738672&uid=2129&uid=2&uid=70&uid=4&sid=21100920519721>
- Hong, E., Wan, M., & Peng, Y. (2011). Discrepancies between Students' and Teachers' Perceptions of Homework. *Journal of Advance Academic*, 22(2), 280-308.
- Katz, I., Eilat, K., & Nevo, N. (2014). "I'll do it later": Type of motivation, self-efficacy and homework procrastination. *Motivation and Emotion*, 38(1), 111-119.
- Kelley, R. (2006). A Helping Hand. *Newsweek*, 148(15), 67.
- Langberg, J. M., Dvorsky, M. R., Molitor, S. J., Bourchtein, E., Eddy, L. D., Smith, Z., ... Evans, S. W. (2016). Longitudinal evaluation of the importance of homework assignment completion for the academic performance of middle school students with ADHD. *Journal of School Psychology*, 55, 27-38. <http://doi.org/10.1016/j.jsp.2015.12.004>
- Park, S. T., Lee, H., Jeong, K. J., Yuk, K. C., & Lee, H. (2009). Physics Inquiry Experiments Using Computer Interface Based Excel VBA. *International Conference on Multimedia and ICT in Education*. 22-24 April. Lisbon, Portugal, 1-5.
- Peluchette, J., & Karl, K. (2010). Examining Students' Intended Image on Facebook: "What Were They Thinking?!" *Journal of Education for Business*, 85(1), 30-37. Doi: 10.1080/08832320903217606.
- Radhakrishnan, P., Lam, D., & Ho, G. (2009). Giving University Students Incentives to Do Homework Improves their Performance. *Journal of Instructional Psychology*, 36(3), 219-225.
- Schwartz, H. L. (2010). Facebook: The New Classroom Commons? *Education Digest*, 75(5), 39-42. Retrieved from <http://chronicle.com/article/Facebook-The-New-Classroom/48575/>
- Wilson, J., & Rhodes, J. (2010). Student Perspectives on Homework. *Journal of Education*, 131(2), 351-358.
- Xu, J. (2010). Homework Purposes Reported by Secondary School Students: A Multilevel Analysis. *Journal of Educational Research*, 103(3), 171-182. Doi: 10.1080/00220670903382939.