The Influence of Parental Involvement, Teacher, and Peer Support on Mastery Goal Orientation and Self-Efficacy among Vocational High School Students

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Abstract

In order to exchange views, products, ideas, and culture, nations are encouraged to live interdependently. Countries that master science and technology likely take advantage of such exchanges. But although Indonesia is rich in natural resources and has a large population, the education in Indonesia has not shown significant progress. Educational policies for Vocational High School (SMK) students are relatively unique, because students are prepared both to enter the workforce, and to pursue a higher knowledge in university. According to theorists, in such an environment, students need self-regulated learning (SRL). Theoretically, the SRL strategies of students are influenced by a motivation component, which includes mastery goal orientation (MGO) and self-efficacy. Student motivation is influenced by their perception of their social environment (parental involvement, peer support, and teacher support). The purpose of this study was to investigate the influence of parental involvement, teacher and peer support on mastery goal orientation and self-efficacy among Vocational High School students in Pasuruan, Indonesia. To achieve these objectives, this study was designed using a quantitative approach, with survey research methods. The instrument used was a questionnaire filled out by a sample of 500 students. The analysis applied to examine the hypothesis in this study was structural equation modeling (SEM) based on the variance, namely partial least squares (PLS). Findings showed that parental involvement, peer support, and teacher support were positive predictors of mastery goal orientation (MGO). Parental involvement, peer support, teacher support, and MGO were also positive predictors of self-efficacy.

Keywords: Mastery goal orientation, self-efficacy

Abstrak

Adanya pertukaran pandangan, produk, pemikiran, dan unsur-unsur budaya telah mendorong bangsa-bangsa di dunia untuk hidup saling tergantung. Bangsa-bangsa yang menguasai ilmu pengetahuan dan teknologi berpeluang mengambil keuntungan dari pola interaksi semacam itu. Sayangnya, Indonesia dianugerahi sumber daya alam dan penduduk yang besar, tetapi dunia pendidikan Indonesia belum menunjukkan kemajuan yang berarti. Menyoroti pendidikan pada jenjang menengah, kebijakan untuk siswa Sekolah Menengah Kejuruan (SMK) relatif unik, sebab siswa disiapkan untuk bekerja sesuai dengan keahliannya, tetapi pada

saat yang sama, pengetahuan siswa juga diperluas agar dapat melanjutkan ke jenjang perguruan tinggi. Menurut teoretisi, dalam kondisi seperti itu, siswa membutuhkan *self-regulated learning* (SRL). Secara teoretik, strategi SRL siswa dipengaruhi oleh komponen motivasi, meliputi *mastery goal orientation* (MGO) dan *self-efficacy*. Motivasi siswa dipengaruhi oleh persepsi terhadap lingkungan sosialnya (keterlibatan orang tua, dukungan teman sebaya, dan dukungan guru). Tujuan dari penelitian ini adalah untuk mengetahui pengaruh keterlibatan orang tua, guru dan dukungan teman sebaya terhadap *mastery goal orientation* dan *self-efficacy* pada siswa SMK di Pasuruan, Indonesia. Untuk mencapai tujuan tersebut, penelitian ini dirancang dengan menggunakan pendekatan kuantitatif, dengan metode penelitian survei. Instrumen yang digunakan adalah angket yang diisi oleh sampel sebanyak 500 siswa. Analisis yang digunakan untuk menguji hipotesis dalam penelitian ini adalah *Structural Equation Modelling* (SEM) berbasis varians yaitu *partial least squares* (PLS). Temuan menunjukkan bahwa keterlibatan orang tua, dukungan teman sebaya, dan dukungan guru adalah prediktor-prediktor positif dari *mastery goal orientation* (MGO). Keterlibatan orang tua, dukungan teman sebaya, dukungan guru, dan MGO juga merupakan prediktor positif dari *self-efficacy*.

Kata-kata kunci: *Mastery goal orientation, self-efficacy*.

1. Introduction

It is undeniable that the quality of education in a country can contribute positively to the country's progress, because the quality of education can improve the quality of human resources. Many factors are associated with the quality of education in Indonesia. It is associated with the policies of goverment, equity, relevance, financing, efficiency, and many other factors. As a result, the quality of education in Indonesia is still relatively low. For example, in 2011, the Education Development Index (EDI) ranked Indonesia 69th of 127 countries. In 2013, the Human Development Index (HDI) ranked Indonesia 121st of 186 countries. Given the relevance of this research, in this study the researchers focused on Vocational High School students. This is a unique type of education, because, in accordance with government policy, Vocational High School students are prepared to enter the workforce, but can also continue their education to college or university. This means that the Vocational High School students should have a higher motivation in their learning process.

Motivation is very important for students to learn. It makes the difference between resentful boredom at one extreme and ravenous interest at the other. It is what moves students from boredom to interest, arouses passion for learning, directs their activity, and maintains their behavior over time. Students who have high motivation will have a lot of energy to learn. In other words, motivation is an essential condition of learning. Learning is an ongoing process in which behavior is motivated and regulated by one's cognitions. One important set of cognitions is self-efficacy, or the belief in one's capacity to perform (Bandura, 1986). A second set of cognitions that effect learning is achievement goal orientation, which refers to one’s desire to develop, attain,

or demonstrate competence in an activity (Dweck & Leggett, 1988). Two classes of goal orientation have been identified: performance goal orientation (PGO) which focuses on demonstrating competence to others, and mastery goal orientation (MGO) which focuses on enhancing one's task competencey. In this study, the researcher investigated the construct of MGO in a general sense. According to Deemer (2008), mastery goal orientation and self-efficacy are similiar motivational constructs because they concern competence perception. I believe that neither of these motivational constructs (the MGO and the self-efficacy of the student) exist in a vacuum but are strongly influenced by the social environment.

This study aims to explain the influence of social environmental factors (parental involvement, peer support, and teacher support) on personal factors, in this case MGO and self-efficacy. In addition, it is hoped that it will be useful to contribute to the existing literature, especially in the scope of psychology in Indonesia.

Theoretical frame: Links among concepts

If we review from the theoretical framework, how the relationship between concepts, according to the social cognitive theory, Bandura (1986; as cited in Zimmerman, 1989) interprets human function through a model of triadic relationships, where behavior (B), person / cognition (P), and environment (E) work in a dynamic interaction. Bandura states that the triadic relationship of human function is not symmetrically strong: the influence of E is stronger than the influences of B or P in some contexts. However, Bandura (1977; as cited in Feist & Feist, 2008), also stated that although the B and the E can sometimes be the strongest contributors to performance, it is the cognition (P) (personal factor) that is the most overall influential.

According to Weiten (2007), motivation involves goal-directed behavior. Students who set goals for mastering learning, according to Schunk (1994; as cited in Correia & Lencastre, 2005), tend to use an adaptive learning strategy. Some researchers conclude that mastery goal orientation is a predictor of a positive learning pattern, high achievement, and self-efficacy (Anderman & Young, 1994; Middleton & Midgley, 1997; Midgley & Urdan, 1995; Pajares et al., 2000; as cited in Hsieh, Sullivan, & Guerra, 2007; Coutinho & Neuman, 2008; Phillips & Gully, 1997). On the other hand, self-efficacy is known as a key mechanism in social cognitive theory, and plays an important role in the learning process of the student. According to Bandura (1977; as cited in Perry, 2007), students who have a high sense of self-efficacy participate more readily, work harder, persist longer when they encounter difficulties, and achieve at a higher level; while students who have a low sense of self-efficacy for learning may avoid it or fail to persist in the face of adversity. Nevertheless, a number of other researchers claim that self-efficacy is not influenced by mastery goal orientation (e.g. Malpass, O'Neil, and Hocevar, 1999). According to Hsieh, Cho, Liu, and Schallert (2008), mastery goal orientation of students is formed by the students' perception of

their learning environment. Students' learning environments include parents, peers, and teachers (Frenzel, Pekrun, & Goetz, 2007).

Parents, peers, and teachers are environments that provide social experiences for students (Zimmerman, 2008). The main influence of the social environment on adolescent self-efficacy is the network of friends and peers (Schunk & Meece, 2006). In relation to schools, parents and teachers can also improve self-efficacy of students through the creation of a supportive environment (Schunk & Meece, 2006).

The theoretical framework of this study is presented as the picture below.

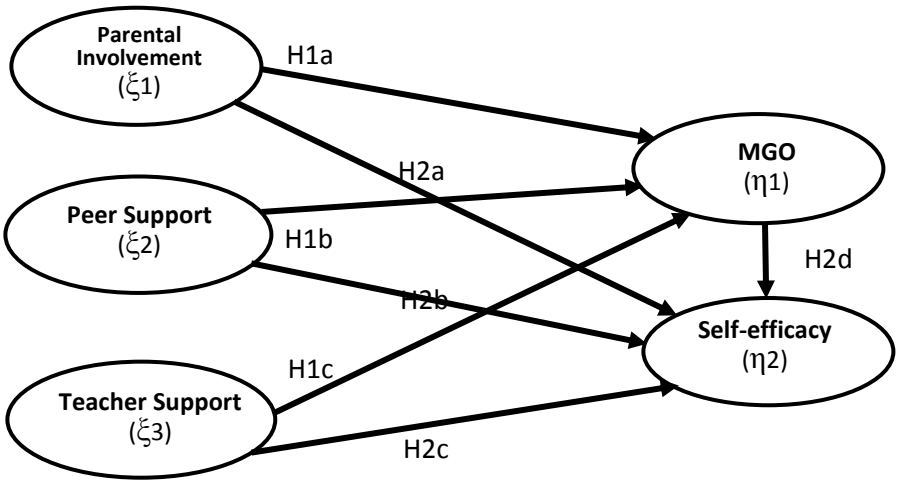

Figure 1. Research Model

Note. MGO = Mastery Goal Orientation; H = hypotheses; ξ (xi) = latent exogenous variables; η (eta) = latent endogenous variables.

The overall objectives of this study were to identify the influence of the social environment (parental involvement, peer support, and teacher support) on MGO and self-efficacy in Vocational High School students in Pasuruan Regency – Indonesia. Based on the relationship of the constructs above, this study poses the following hypotheses:

H1 = There is an influence of parental involvement, peer support, and teacher support, on MGO.

H2 = There is an influence of parental involvement, peer support, teacher support, and MGO on self-efficacy.

2. Method

Participants

Participants in this study were Vocational High School students in Pasuruan Regency, East Java - Indonesia. The sample included 500 students (267 females, 233 males), from tenth (n = 167), eleventh (n = 166) and twelfth (n = 167) grade, with ages ranging between 14-19 years. Before administration, informed consent and permission to report the findings were obtained from the volunteer participants. It should be stressed that participation in this investigation was voluntary and no remuneration was given.

Instruments

Mastery goal orientation (MGO) - The questionnaire was designed by researcher and consists of 4 reflective indicators, namely focus on gaining knowledge, developing skills, mastering tasks, and using self-set standards. An example of an item was: *"My aim in learning is to master knowledge."* When trying out instruments, I obtained a Cronbach's alpha coefficient of .68.

Self-efficacy - The questionnaire was designed by researcher and consists of 5 reflective indicators, namely belief in students' ability to successfully cope with a wide variety of challenging tasks, ability to face up a wide range of demanding situations, belief in ability to organize actions, belief in capacity to execute the actions, and ability to produce desired results. An example of an item was: *"If I tried, I was confident of being able to solve problems that are difficult."* When trying out instruments, I obtained a Cronbach's alpha coefficient of .82.

Parental involvement - The questionnaire was designed by researcher and consists of 6 reflective indicators, namely parents setting a time for students to learn, checking the lesson schedule, making sure students do their homework, limiting time for playing or watching TV, attending school meetings, and asking the teacher about behavior or student achievement. An example of an item was: *"My parents have discussed with my teachers about my school performance."* When trying out instruments, I obtained a Cronbach's alpha coefficient of .88.

Peer support - The questionnaire was designed by researcher and consists of 4 formative indicators, namely emotional support, instrumental support, appraisal support, and informational support. An example of an item was: *"When I do well in school, my friends praise me."* When trying out instruments, I obtained a Cronbach's alpha coefficient of .77.

Teacher support - The questionnaire was designed by researcher and consists of 5 reflective indicators, namely the teacher being caring, encouraging, helpful, respecful, and willing to work with students. An example of an item was: *"My teacher gives a*

phone number or email, so I can contact him at any time." When trying out instruments, I obtained a Cronbach's alpha coefficient of .89.

Procedure

Before the study was conducted, the instrument was tested first, so the researcher believe that it was a good quality instrument. Furthermore, because the area of Pasuruan Regency is quite extensive, the process of random sampling in this study was done in two steps, called two-stage random sampling. Firstly, there is cluster random sampling. In this step four schools were elected (SMK Negeri 1 Grati, SMK Negeri 1 Purwosari, SMK Negeri 1 Wonorejo, and SMK Negeri 1 Tutur). Secondly, there is simple random sampling, where researchers determined the sample students by ordinal. In this way, all students were selected randomly, free from the subjectivity of the researcher. At the time of the study, students filled in the questionnaire, indicating on the 6-point Likert type scale (from 1 = strongly disagree to 6 = strongly agree) how they felt about each statement or item presented, lasting approximately 45 minutes. Given that this study aims to develop theories by examining the predictive relationship among constructs, and that there are constructs with reflective and formative indicators, in processing the data, I used the structural equation modeling (SEM) alternative, which is referred to as partial least squares (PLS), XLSTAT-PLS 2014.

3. Results and Discussions

Results

Before testing the relationship among constructs using PLS, we processed the data to determine students' responses by grouping them into the following five categories (stanfive): very low, low, moderate, high, and very high. Based on the mean and standard deviation, we found the highest percentage of student responses in all constructs were in the category of "moderate". Furthermore, we tested the proposed hypotheses, and the research findings are as follows:

There is an influence of parental involvement, peer support, and teacher support, on MGO.

The first hypothesis is accepted. This statement is supported by the probability value (p) of the F-statistics, namely the p-value of $0.000 < \alpha$ ($\alpha = .05$). This means that statistically the data proves that all predictor variables (i.e. parental involvement, peer support, and teacher support), have a significant influence on MGO. Furthermore, the amount of influence the three predictor variables have on MGO can be seen from the value of the coefficient of determination ($R^2 = .139$). R^2 value of .139 implies that the MGO variable which can be explained by the three variables is 13,9%, while the remaining 86,1% suggests the influence of other variables, beyond this model.

There is also an influence of parental involvement on MGO. It is supported by the value of t-statistics parental involvement variable 3.884 > t-table 1.96 (significance at 5% level = 1.96), and Pr> | t | = .000 < .05 so it can be concluded that the path coefficients of parental involvement have a significant influence on MGO. Furthermore, the influence of peer support on MGO also has a significant influence. It is supported by the value of t-statistics peer support variable 2.435 > t-table 1.96, and Pr> | t | = .015 < .05. Similarly the influence of teacher support on MGO also has a significant influence. It is supported by the value of the t-statistics teacher support variable 2.738 > t-table 1.96, and Pr> | t | = .006 < .05.

There is an influence of parental involvement, peer support, teacher support, and MGO on self- efficacy.

The second hypothesis is accepted. This statement is supported by the probability value (p) of the F-statistics, namely the p-value of .000 < α (α = .05). This means that statistically the data proves that all predictor variables (i.e. parental involvement, peer support, teacher support, and MGO), have a significant influence on self-efficacy. Furthermore, the amount of influence the four predictor variables have on self-efficacy can be seen from the value of the coefficient of determination (R^2 = .340). R^2 value of .340 implies that the self-efficacy variable which can be explained by the four predictor variables is 34%, while the remaining 66% suggests the influence of other predictor variables, beyond this model.

Evidently there is not the influence of parental involvement on self-efficacy. This is supported by the value of t-statistics parental involvement variable 1.174 < t-table 1.96, and Pr> | t | = .232> .05 so it can be concluded that the path coefficients parental involvement have no significant influence on self-efficacy. Different evidence is shown in the relationship between peer support and self-efficacy, because the influence of peer support on self-efficacy is significant. It is supported by the value of t-statistics peer support variable 4.568> t-table 1.96, and Pr> | t | = .000 < .05. Like the relationship between parental involvement and self-efficacy, the teacher support also has no significant influence on self-efficacy. This is supported by the value of t-statistics teacher support variable .922 < t-table 1.96, and Pr> | t | = .357 > .05. Futhermore, as we originally projected, there is the influence of MGO on self-efficacy. It is supported by the value of t-statistics MGO variable 11.124 > t-table 1.96, and Pr> | t | = .000 < .05 so it can be concluded that the path coefficients of MGO have a significant influence on self-efficacy.

The results of the data, which shows the relationship between constructs, is shown in the picture below using PLS.

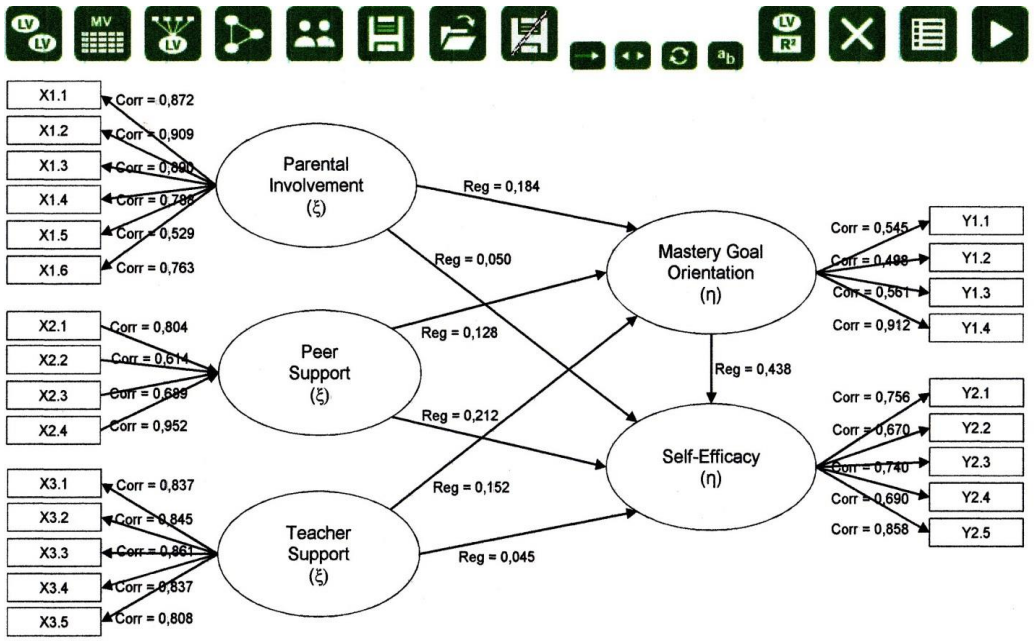

Figure 2. Results of the Structural Model and Hypotheses Test

Note. X1.1 – X1.6 = Indicators of Parental Involvement; X2.1 – X2.4 = Indicators of Peer Support; X3.1 – X3.5 = Indicators of Teacher Support; Y1.1 – Y1.4 = Indicators of Mastery Goal Orientation (MGO); Y2.1 – Y2.5 = Indicators of Self-Efficacy.

Discussions

In the first structural model (inner model), this research proves that there is the influence of parental involvement, peer support, and teacher support on the MGO. The results of this hypothesis support the view of the earlier theorists that goals and beliefs of students are not in a vacuum, but are formed by the students' perception of the learning environment (Hsieh et al., 2008), especially parents, peers, and teachers (Frenzel et al., 2007). The value of the coefficient of determination (R^2 = .139) can be categorized as a model of "weak" (Chin, 1998), because the three predictor variables can only explain 13,9% variability of the MGO. The largest contributor among the predictor variables to MGO is the parental involvement, followed by teacher support, and finally peer support.

When examining the influence of variables, I found that there is the influence of parental involvement on MGO. This means that students' MGO is shown to be effected by parents setting a time for students to learn, checking the lesson schedule, making sure students do their homework, limiting time for playing or watching TV, attending school meetings, and asking the teacher about student behavior or achievement. The results of this study differ from the findings of Gonzalez, Greenwood, and WenHsu (2001), who state that parental involvement is not associated

with MGO. However, our study supports Abd-El-Fattah (2006), who concluded that parental involvement has a positive influence on MGO.

I also found that there is the influence of peer support on MGO. This means that MGO is influenced by peer support, either in the form of emotional support, instrumental support, appraisal support, or informational support. The results of this study support the view of Scholte and Aken (2006; as cited in Bokhorst, Sumter, & Westenberg, 2010) that in adolescence, the importance of peers exceed that of their parents or family. I tried to find previous studies on the relationship between these two variables (peer support and MGO), but I have yet to find any.

I also found that there is the influence of teacher support on MGO. This means that MGO is influenced by teachers' support in a variety of forms, including the teacher being caring, encouraging, helpful, respectful, and willing to work with students. The results of this study support Wentzel's idea (as cited in Friedel, Marachi, & Midgley, 2002) about the influence of teachers' support dealing with students' MGO and compliance in the classroom. These results are also consistent with the study of Patrick, Ryan, and Kaplan (2007), which indicates that there is a relationship between a teacher's emotional support and both variables of student engagement (self-regulation strategies and task-related interaction) fully mediated by MGO and academic efficacy.

In the second structural model (inner model), this research proves that there is the influence of parental involvement, peer support, teacher support, and MGO on self-efficacy. The results of this hypothesis support the view of the earlier theorists that the student beliefs are formed by students' perceptions of their learning environment (Hsieh et al., 2008), and the main social environments for students are parents, peers, and teachers (Frenzel et al., 2007). Parents and teachers can also enhance young people's self-efficacy by creating supportive environments (Schunk & Meece, 2006). In addition, some researchers concluded that MGO positively correlated with patterns of learning, achievement, and self-efficacy (Anderman & Young, 1994; Middleton & Midgley, 1997; Midgley & Urdan, 1995; Pajares et al., 2000; as cited in Hsieh et al., 2007). Students who master setting learning goals (MGO), according to Schunk, (1994; as cited in Correia & Lencastre, 2005) have a stronger sense of self-efficacy for learning. The value of the coefficient of determination (R^2 = .340) can be categorized as a model of "moderate" (Chin, 1998), because the four predictor variables can explain 34% variability of the self-efficacy. The largest contributor among the predictor variables of self-efficacy is the MGO, followed by peer support, then teacher support, and finally parental involvement.

The evidence proved, contrary our expectation, that the influence of parental involvement on self-efficacy is not significant. This means that the data we collected was not able to prove the influence of parental involvement on students' self-efficacy. The results of this study support the view of Dauber and Epstein (1989; as cited in Eccles & Harold, 1996), that students whose parents were educated tend to be involved in the educational process of their children. Pasuruan Regency - where this study was

conducted- is a region where illiteracy in citizens is still very high. The results of this study are consistent with the study of Rubel (2008) who concluded that self-efficacy is not significantly correlated with social support (parent, teacher, and classmate) in grades 6 and 7.

I also found that there is the influence of peer support on self-efficacy. This means that self-efficacy is influenced by peer support in various forms, namely emotional support, instrumental support, appraisal support, and informational support. The results of this study support the view of Schunk and Meece (2006), who state that the key social influences on adolescents' self-efficacy are friends and peer networks. These results are also in line with the research of Rubel (2008), who found evidence that the frequency of social support from classmates is a predictor of self-efficacy at all grade levels (grades 6, 7, and 8).

I also found that the relationship between teacher support and self-efficacy has no significant influence. This means that the data I collected is not able to prove the influence of teacher support on students' self-efficacy. I suspect teachers have already seen their students' capabilities, but do not express their opinions to their students (Pajares, 2006). Pajares added that the confidence that teachers have in their capability to effect their students' learning effects their instructional activities and their orientation toward the educational process. In this case, what the teacher does, according to Pajares, is provide praise for what is praiseworthy. The results of this study are consistent with the study of Rubel (2008) who proved that the frequency of teacher support is not a significant predictor of students' self-efficacy.

Futhermore, I also found that there is the influence of MGO on self-efficacy. This means that self-efficacy is shown to be effected by the students' mastery goal orientation in learning, which is focus on gaining knowledge, developing skills, mastering tasks, and using self-set standards. The results of this study support that MGO is associated with improved academic performance, self-efficacy, and student motivation (Bong, 2004; Shim & Ryan, 2005; Zimmerman, 2002; as cited in Hilts, 2012), and positively correlated with a pattern of learning, achievement, and self-efficacy (Anderman & Young, 1994; Middleton & Midgley, 1997; Midgley & Urdan, 1995; Pajares et al., 2000 as cited in Hsieh et al., 2007; Coutinho & Neuman, 2008; Phillips & Gully, 1997). However, in contrast, the findings of the study from Malpass et al. (1999), concluded that self-efficacy is not effected by MGO.

Limitations and Future Research Directions

The present study is not without limitations. In I study, I only researched MGO. It can be developed by adding the variable performance goal orientation (PGO), because both MGO and PGO are derived from the goal orientation theory. It is important to note that goal orientation can not only be divided into a dichotomous model (MGO and PGO), but also a trichotomous model (MGO, performance-approach, and performance-

avoidance goals), and even within four types (i.e. mastery-approach, mastery-avoidance, performance-approach, and performance-avoidance goals).

4. Conclusions

According to the results of this study, in the first model it was found that parental involvement, peer support, and teacher support were positive predictors of MGO. MGO is most strongly influenced by parental involvement, followed by teacher support, and finally peer support. In the second model, parental involvement, peer support, teacher support, and MGO also have positive predictors of self-efficacy. However partially, self-efficacy is most strongly influenced by MGO, followed by peer support, while the influence of parental involvement and teacher support were not significant predictors of self-efficacy.

References

Abd-El-Fattah, S.M. (2006). The relationship among Egyptian adolescents' perception of parental involvement, academic achievement, and achievement goals: A mediational analysis. *International Education Journal, 7*(4), 499-509. doi:10. 4236/psych.2012.35061

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.

Bokhorst, C. L., Sumter, S. R., & Westenberg, P. M. (2010). Social support from parents, friends, classmates, and teachers in children and adolescents aged 9 to 18 years: Who is perceived as most supportive? *Social Development, 19*(2), 417-426. doi: 10.1111/j.1467-9507.2009.00540.x

Busari, A.O. (2011). Information technology as predictors of self-regulated learning in some private secondary schools in Nigeria. *American Journal of Scientific and Industrial Research, 2*(5), 726-733.

Camahalan, F. M. G. (2006). Effects of self-regulated learning on mathematics achievement of selected Southeast Asian children. *Journal of Instructional Psychology, 33*(3), 194-205.

Chin, W. W. (1998). The partial least squares approach for structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295-336). London, UK: Lawrence Erlbaum Associates.

Correia, S., & Lencastre, E.R. (2005, September). Dragons Pathways. In K. Steffens, R. Carneiro, & J. Underwood (Eds.), *Self-regulated learning in technology*

enhanced learning environments. Proceedings of the TACONET conference. Lisbon. Portuguese Catholic University. Retrieved from https://www.academia.edu/2785344/SELF-EGULATED_LEARNING_IN_ TECHNOLOGY-ENHANCED_LEARNING_ENVIRONMENTS_RELEV ANCE_TO_INDUSTRY_NEEDS_AND_PRACTICE

Coutinho, S.A., & Neuman, G. (2008). A model of metacognition, achievement goal orientation, learning style and self-efficacy. *Learning Environ Res, 11,* 131-151. doi:10.1007/s10984-008-9042-7

Crippen, K. J., Biesinger, K. D., Muis, K. R., & Orgill, M. (2009). The role of goal orientation and self-efficacy in learning from web-based worked examples. *Journal of Interactive Learning Research, 20*(4), 385-403.

Davis, F.D., Bagozzi, R.P., & Warshaw, P.R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science, 35*(8), 982-1003.

Deemer, E. D. (2008). *The research training environment and research-relevant outcomes: An investigation of mediating effect of mastery approach goal.* (Doctoral dissertation). Available from ProQuest Dissertation and Theses database. (UMI No. 3345772).

Dettrori, G., & Gianetti, T. (2005, July). *Developing self-regulated learning in ICT-based narrative environments*. Paper presented at the workshop on narrative learning environments organized within the international conference on artificial intelligence in education-AIED, Amsterdam. Retrieved from https: //www.academia.edu/4808933/Developing_Self-Regulated_Learning_in_IC T-based_Narrative_Environments

Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review, 95,* 256-273.

Eccles, J.S., & Harold, R.D. (1996). Family involvement in children's and adolescents' schooling. In A. Booth & J. F. Dunn (Eds.), *Family-school links: How do they affect educational outcomes?* (pp. 3-34). Mahwa, NJ: Lawrence Erlbaum Associates.

Feist, J., & Feist, J. G. (2008). *Theories of personality*. Edisi Keenam. Alih bahasa Yudi Susanto. Yogyakarta: Pustaka Pelajar.

Frenzel, A.C., Pekrun, R., & Goetz, T. (2007). Perceived learning environment and students' emotional experiences: A multilevel analysis of mathematics classrooms. *Learning and Instruction, 17,* 478-493. doi:10.1016/j.learninstruc. 2007.09.001

Friedel, J., Marachi, R., & Midgley, C. (2002, April). *"Stop embarrassing me!" Relations among student perceptions of teachers, classroom goals, and maladaptive behaviors.* Presented at the annual meeting of the American

educational research association, New Orleans, LA. Retrieved from http://www. umich.edu/~pals/AERA2002%20handout.pdf

Giovanis, A. N., Binioris, S., & Polychronopoulos, G. (2012). An extension of TAM model with IDT and security/privacy risk in the adoption of internet banking services in Greece. *EuroMed Journal of Business*, *7*(1), 24-53. doi:10.1108/ 14502191211225365

Gonzalez, A. R., Greenwood, G., & WenHsu, J. (2001). Undergraduate students' goal orientations and their relationship to perceived parenting styles. *College Student Journal, 35*, 182-193.

Gumussoy, C. A., Calisir, F., & Bayram, A. (2007, December). *Understanding the behavioral intention to use ERP systems: An extended technology acceptance model.* Proceedings of the 2007 IEEE IEEM, Singapore. Retrieved from http://www.betsaonline.com/ERP/UnderstandingBehavioralERP.pdf

Hasan, M. A., Samah, B. A., Saffril, H. M., & D'Silva, J. L. (2011). Perceived usefulness of ICT usage among JKKK members in Peninsular Malaysia. *Asian Social Science*, *7*(10), 255-266. doi:10.5539/ass.v7n10p255

Hernandez, B., Jimenez, J., & Martin, M. J. (2009). Business acceptance of information technology: Expanding TAM using industry sector and technological compatibility. *International Journal of Enterprise Information Systems*, *4*(4), 62-79.

Hilts, K.W.Jr. (2012). *Classroom practices that support self-regulation and achievement goals in high school students* (Doctoral dissertation). Available from ProQuest Dissertation and Theses database. (UMI No. 3539023).

Hsieh, P., Sullivan, J.R., & Guerra, N.S. (2007). A closer look at college students: Self-efficacy and goal orientation. *Journal of Advanced Academics. 18*(3), 454–476.

Hsieh, P., Cho, Y., Liu, M., & Schallert, D.L. (2008). Examining the interplay between middle school students' achievement goals and self-efficacy in a technology-enhanced learning environment. *American Secondary Education, 36* (3), 33-50.

Koenig-Lewis, N., Palmer, A., & Moll, A. (2010). Predicting young consumers' take up of mobile banking services. *International Journal of Bank Marketing*, *28*(5), 410-432. doi:10.1108/02652321011064917

Lai, J-Y., & Ulhas, K. R. (2012). Understanding acceptance of dedicated e-textbook applications for learning: Involving Taiwanese university students. *The Electronic Library, 30*(3), 321-338. doi:10.1108/02640471211241618

Lau, S. H., & Woods, P. C. (2008). Understanding learner acceptance of learning objects: The roles of learning object characteristics and individual differences. *British Journal of Educational Technology*, *40*(6), 1059-1075. doi:10.1111/j.1467-8535.2008.00893.x

Malpass, J. R., O'Neil, Jr., H. F., & Hocevar, D. (1999). Self-regulation, goal orientation, self-efficacy, worry, and high-stakes math achievement for mathematically gifted high school students. *Roeper Review*, *21*(4), 281-288.

Neuville, S., Frenay, M., & Bourgeois, E. (2007). Task value, self-efficacy and goal orientations: Impact on self-regulated learning, choice and performance among university Students. *Psychologica Belgica*, *47*(1/2), 95-117.

Ng, Chi-hung (2002, December). *Relations between motivational goals, beliefs, strategy use and learning outcomes among university students in a distance learning mode: A longitudinal study.* Paper presented at the annual conference of Australian association for research in education, Brisbane. Retrieved from http://www.aare. edu.au/02pap/ng02462.htm.

Pajares, F. (2006). Self-efficacy during childhood and adolescence. Implications for teachers and parents. In F. Pajares & T. Urban (Eds.), *Self-efficacy beliefs of adolescents* (pp. 339-367). Greenwich CT. Information Age Publishing.

Patrick, H., Ryan, A. M., & Kaplan, A. (2007). Early adolescents' perceptions of the classroom social environment, motivational beliefs, and engagement. *Journal of Educational Psychology, 99*(1), 83–98. doi:10.1037/0022-0663.99.1.83

Perry, C.M. (2007). *The effects of a parent training intervention on students' self-regulated learning* (Doctoral dissertation). Available from ProQuest Dissertation and Theses database. (UMI No. 3274147).

Phang, C. W., Sutanto, J., Li, Y., & Kankanhalli, A. (2005). *Senior citizens' adoption of e-government: In quest of the antecedents of perceived usefulness.* Paper presented at proceedings of the 38th annual Hawaii international conference on system sciences. Retrieved from http://www.computer.org/csdl/ proceedings/hicss/2005/2268/05/22680130a.pdf

Phillips, J. M., & Gully, S. M. (1997). The role of goal orientation, ability, need for achievement, and locus of control in the self-efficacy and goal setting process. *Journal of Applied Psychology, 82*(5), 792-802.

Rose, J., & Fogarty, G. (2006, July). *Determinants of perceived usefulness and perceived ease of use in the technology acceptance model: Senior consumers' adoption of self-service banking technologies.* Academy of world business, marketing and management development conference proceedings, Australia. Retrieved from http://web.ffos.hr/oziz/tam/Rose_ 2006+++++++.pdf

Rubel, D.P. (2008). *Perceived classmate, teacher, and parent support and self-regulated learning skills during middle school* (Doctoral dissertation). Available from ProQuest Dissertation and Theses database. (UMI No. 3302118).

Schraw, G., Kauffman, D. F., & Lehman, S. (2002). Self-regulated learning. In L. Nadel (Ed.), *The encyclopedia of cognitive science* (pp. 1063–1073). London: Nature Publishing Company.

Schunk, D.H. (1990). Goal setting and self-efficacy during self-regulated learning. *Educational Psychologi*st, *25*(1), 71-86.

Schunk, D. H., & Meece, J. L. (2006). Self-efficacy development in adolescences. In F. Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (pp. 71-96). Greenwich, CT: Information Age Publishing.

Schunk, D. H., & Pajares, F. (2009). Self-efficacy theory. In K. Wentzel & A. Wigfield (Eds.), *Handbook of motivation at school* (pp. 77-104). New York, NY: Routlege.

Schunk, D., & Zimmerman, B. (2007). Influencing children's self-efficacy and self-regulation of reading and writing through modeling. *Reading & Writing Quarterly, 23*(1), 7-25. doi:10.1080/10573560600837578

Singleton, C.S. (2007). *The influence of goal orientation on trainee learing strategies and outcomes of a work readiness program* (Doctoral dissertation). Available from ProQuest Dissertation and Theses database. (UMI No. 3302927)

Stevens, C. K., & Gist, M. E. (1997). Effects of self-efficacy and goal orientation training on effective negotiation skills maintenance: What are the mechanisms? *Personnel Psychology, 50*, 955-978.

Teo, T. (2009). Examining the relationship between student teachers' self-efficacy beliefs and their intended uses of technology for teaching: A structural equation modelling approach. *Turkish Online Journal of Educational Technology - TOJET, 8*(4), 7-15.

Weiten, W. (2007). *Psychology: Themes and Variations*. Seventh Edition. University of Nevada, Las Vegas: Thomson Wadsworth. pp. 335-675.

Wirth, J., & Leutner, D. (2008). Self-regulated learning as a competence implications of theoretical models for assessment methods. *Zeitschrift für Psychologie / Journal of Psychology. 216*(2), 102–110. doi:10.1027/0044-3409.216.2.102

Womble, J.C. (2007). *E-learning: The relationship among learner satisfaction, self-efficacy, and usefulness* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3298903).

Wong, S. L., Ibrahim, N., & Ayub, A. F. M. (2011). *Exploring the relationship between learning strategies and computer attitudes among Malaysian secondary school students*. International conference on humanities, society and culture. IPEDR, Singapore. Retrieved from http://www.ipedr.com/ vol20/57-ICHSC2011-M1 0065.pdf

Wu, J. H., Wang, S. C., & Lin, L. M. (2007). Mobile computing acceptance factors in the healthcare industry: A structural equation model. *International Jour-nal of Medical Informatics, 76*, 66–77. doi:10.1016/j.ijmedinf.2006. 06.006

Wynn, Z.N., Winn, T., & Syed-Mohamad, S.M. (2012). *Technology acceptance model for web-based repository of health education materials*. International conference on management and education innovation. IPEDR, Singapore. Retrieved from http://www.ipedr.com/vol37/038-ICMEI2012-E10014.pdf

Yen, N. L., Bakar, K. A., Roslan, S., Luan, W. S., Zabariah, & Rahman, P. Z. M. A. (2005). Predictors of self-regulated learning in Malaysian smart schools. *International Education Journal, 6*(3), 343-353.

Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology. 81*(3), 329-339.

Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13–39). New York: Academic Press.

Zimmerman, B. J. (2008). Investigating self-regulation and motivation: Historical back-ground, methodological developments, and future prospects. *American Educational Research Journal. 45*(1), 166–183. doi:10.3102/000283 120731 2909.

Zimmerman, B.J., & Martinez-Pons, M. (1986). Development of a structured interview for assessing student use of self-regulated learning strategies. *American Educational Research Journal*, *23*(4), 614-628.

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