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# Teacher Emotional Support and School Engagement: The case of Physical Education Teachers and Students in a Prominent Local College

**Authors' contribution:**
A) conception and design of the study
B) acquisition of data
C) analysis and interpretation of data
D) manuscript preparation
E) obtaining funding

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## Abstract

A large number of published papers have investigated the relationship between perceived teacher emotional support and students' engagement in school across a variety of subject areas at the primary and secondary levels. However, very few or none of these studies examine the topic in the context of physical education in higher education. It would be highly desirable for a study comparable to this one to be carried out within the context of tertiary education in order to address the dearth of scholarly works that concentrate on these two constructs. In light of this, the current study investigated the connection between teachers' emotional support and their student's level of engagement in their academic work. The participants in the study were undergraduate students (males = 374, females = 536) who were enrolled in minor PE courses at a prominent local college in Angeles City, Philippines. Following the calculation of Spearman's rho and multiple regression analyses, the findings revealed that perceived teacher emotional support (along with its three distinct features: positive atmosphere, teacher sensitivity, and regard for the adolescent perspective) is significantly associated with [$r(908) = .519$, $p < .05$)] and has a direct influence on [$F(3, 906) = 120.508$, $p < .001$] school engagement. Additionally, this study highlighted the critical role that PE instructors play in providing students with emotional support, which in turn leads to higher levels of engagement and achievement reports. The presentation includes suggestions for the professional development of teachers of PE and future research initiatives.

**Key words:** local college, physical education, school engagement, teacher emotional support, tertiary education

## Introduction

Teachers in elementary and secondary schools are tasked with helping their pupils to feel emotionally supported so that they can learn and grow in an environment where they can express themselves freely and confidently while still fitting in with their peers (Birgani et al., 2015; Pakarinen et al., 2020). Additionally, teachers who show genuine interest in their pupils are rewarded with learners who, in turn, demonstrate their respect for them by following classroom rules (Chiu et al., 2016; Chiu & Chow, 2011; Longobardi et al., 2016). In addition, when it comes to handling challenging behaviors in children, the relationship that exists between teachers and students plays a significant influence (Shin & Ryan, 2017; Wahyuni & Ramadhani, 2019). Most importantly, pupils whose emotional needs are met may show greater signs of engagement in school, which would be reflected in improved academic performance (Frenzel et al., 2021; OECD, 2017; Olana & Tefera, 2022). However, no previous studies have

been conducted on young adults in a college environment, specifically in a Physical Education class setting. Because of this, it is crucial to conduct a study of a similar nature in this context. Teachers will benefit immensely from the study's findings because of the practical implications it will have in helping them to provide support to students dealing with various challenges and obstacles on a daily basis at school, which in turn will improve their overall academic performance.

**Perceived Teacher Emotional Support and School Engagement**

The vast majority of students are expected to spend most of their time in the classroom, where they must deal with a variety of difficult scholastic needs, as well as a variety of different sorts of pressure and expectations (Romano et al., 2021b). This should not come as a surprise, considering the emotional strain that is placed on students as a result of the overwhelming demands of formal education and taking into account evidence that students are significantly influenced by the emotional support provided by the significant adults in the school environment (Yang et al., 2021). The term *teacher emotional support* refers to a teacher's ability to cultivate a positive relationship and atmosphere with their students, as well as their capability to proactively respond to their students' needs and support their interactions (Pakarinen et al., 2020). It also demonstrates true concern, care, and respect, along with the desire to comprehend the feelings and point of view of their students, and their reliability (Hogekamp et al., 2016; Ruzek et al., 2016; Wang, 2022). Additionally, it is an act in which the learner feels secure, has the courage to attempt new things, and is actively engaged in the learning process (Gasser et al., 2018; Kikas & Tang, 2019). Teacher Emotional Support (TES) is a multifaceted construct that, according to the framework developed by Pianta and Hamre (2009), possesses three distinct features. These features are: a positive atmosphere, *teacher's sensitivity*, and *regard for the adolescent perspective*. For an additional in-depth detail, the term positive climate (PC) or positive atmosphere refers to the way in which a teacher is enthusiastic about fostering positive connections with students, which in turn creates more opportunities for students to demonstrate enhanced academic improvement (Pangle, 2022). Also, when there is a sense of connection and belonging, delight and enthusiasm, and respect noticed between the teacher and pupils, as well as in the teacher-student relationship, a classroom atmosphere is deemed to be positive (Khalfaoui et al., 2021). Another distinguishing characteristic of teacher emotional support is the teacher's sensitivity (TS), which refers to the teacher's ongoing monitoring of the students for indications that they require additional assistance or support (Chen et al., 2020; Kennedy, 2019). In addition to this, it is stressed as the proactiveness of the teacher to the emotional, academic and individual needs of their students (Aldrup et al., 2020; Romano et al., 2020, 2021a). Regard for the adolescent perspective (RAP) is the degree to which a teacher reacts with regards to flexibility, linkages to the present life, autonomy and leadership support, as well as meaningful peer interactions (Vattøy & Gamlem, 2019). Teachers who have a strong regard for the viewpoints of adolescents consciously and consistently practice the things that make learning easier and more enjoyable and are things that particularly matter to young people (Verhoeven et al., 2019).

Meanwhile, *School Engagement* is a method of envisioning academic achievement that has become a significant concept and piqued the interest of educational researchers (Li et al., 2021; Liu et al., 2021; Ritoša et al., 2020). Students exhibit varying levels of attention, inquisitiveness, interest, buoyancy, and desire when receiving information on a concept, such as the great variety of physical activities that are covered in PE. The interest that students take in their academic work extends to the motivation they feel to learn new things and make progress in their education (Charkhabi et al., 2019). School engagement encompasses a variety of domains, including cognitive domains (such as investment in mastering tasks and flexible problem-solving), affective domains (such as a sense of identification and a positive outlook towards school), and behavioral domains (such as students' participation in schooling and positive practices in schooling) (Benito Mundet et al., 2021). On the basis of these three aspects, the idea of participation in education may be broken down into three distinct characteristics: *vigor*, *dedication*, and *absorption* (Jaya & Ariyanto, 2021). The term vigor (VI) is used to describe a student who is characterized by high levels of energy, resilience, excitement, and adaptability in their quest for excellence. In other words, the student has a positive attitude toward the obstacles that they face despite the difficulties endured as a result of the many pressures and expectations that academic coursework (for example, PE) might bring (Demirbatır, 2020; Pulido-Martos et al., 2020). An individual's engagement in a variety of academic tasks with a strong feeling of commitment and excitement is what we mean when we talk about dedication (DE) (Listau et al., 2017; Teuber et al., 2021). A student who possesses a very constructive cognitive attitude toward school and who is exceptionally dedicated to the learning procedures and objectives is said to have this type of attitude (Widlund et al., 2021). Last but not least, the term absorption (ABS) refers to a student who is engaged in a variety of academic activities (Koob et al., 2021). It is possible to infer that the quality of having a very high sense of competence in studying the material at hand is exemplified by this domain. This quality can also be intellectualized as the feeling of being competent and being completely focused on one's academic pursuits so that time flies by (Rautanen et al., 2021). According to Estévez

et al. (2021), these three aspects of student engagement in school are quite unique from one another, yet have a strong connection to each other.

Previous research has been able to delve deeper into the connection between teacher emotional support and school engagement (Kelly & Zhang, 2016; Lam et al., 2012; Pérez-Salas et al., 2021; Pöysä et al., 2019; Ruzek et al., 2016). Nevertheless, the aforementioned evidence is most prevalent in the context of primary and secondary educational institutions. There have been various attempts to look for published papers relevant to this current topic; however, there seems to be no empirical research available on higher education, particularly in the field of PE. There is, without a doubt, a deficiency in the number of empirical papers been published on the emotional support that students feel they receive from their teachers, as well as the connection between the two and the influence it has directly on school participation. As a result, it would be of great benefit and should be strongly urged that a study comparable to this one be carried out in the context of a higher education institution in the Philippines.

**Aims and Hypotheses**

The purpose of this study was to investigate the connection between emotional support provided by PE teachers and the degree of engagement shown by students. Based on the references examined for this study, it would be interesting to evaluate the following hypothesis:

**$H_1$**: There is a significant relationship between Teacher Emotional Support and School Engagement;
**$H_2$**: Teacher Emotional Support has a significant influence on School Engagement;
**$H_3$**: Positive atmosphere has a direct influence on School Engagement;
**$H_4$**: Teacher's Sensitivity has a direct influence on School Engagement; and
**$H_5$**: Regard for the Adolescent Perspective has a direct influence on School Engagement.

Below are the conceptual frameworks that were formulated based on the hypotheses that will be tested for this study (see Figures 1 and 2).

**Figure 1.** Conceptual Framework for Correlation Analysis

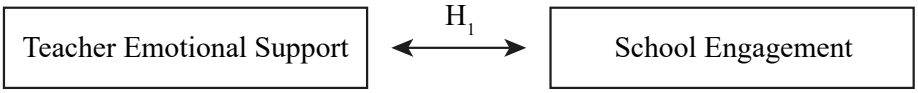
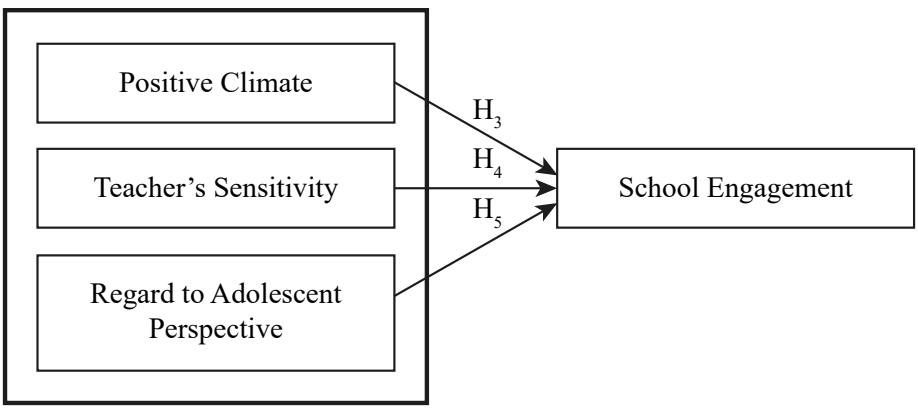



**Figure 2.** Conceptual Framework for Multiple Regression Analysis




## Methods and materials

**Population and sampling technique**

The respondents for the study are students currently enrolled in Physical Education 1 (PATH-Fit1) and Physical Education 3 (PATH-Fit3) during the first semester, A.Y. 2022-2023 at City College of Angeles, located in the City of Angeles, Philippines. The selected respondents for this investigation were identified via the *Purposive Sampling Technique*. This is a non-probability sampling technique

where the researcher can deliberately choose the respondents due to their qualities that are highly suitable for the study (Lobo, 2022). Additionally, the *Raosoft Sample Size Calculator* was utilized to determine the target sample from the overall population. Based on the total population of 2000 students, the suggested sample size for the study is 323. Overall, 910 respondents volunteered to participate. All responses were accepted after data cleaning. The demographic characteristics of the respondents are typified in Table 1. The table revealed that most of the respondents are female (N=536) constituting 58.9% of the total sample size, while the males (N=374) are 41.1% of the sample. Furthermore, most of the respondents belong to the Institute of Education, Arts, and Sciences (N=393) denoting 43.2%, followed by the Institute of Business and Management (N=361) 39.7%, and the Institute of Computing Studies and Library Information Science (N=156) 17.1%, respectively.

**Table 1.** Demographic characteristics

| Item | Values | *N (%)* |
|---|---|---|
| Gender | | |
| | Male | 374 (41.1%) |
| | Female | 536 (58.9%) |
| Institute | | |
| | Institute of Education, Arts, and Sciences | 393 (43.2%) |
| | Institute of Business and Management | 361 (39.7%) |
| | Institute of Computing Studies and Library Information Science | 156 (17.1%) |

**Instrument**

First, The English version of the *Teacher's Emotional Support Scale* by Romano et al. (2020) was utilized to gather data from the respondents. It is a 5-point Likert scale consisting of 15 items which measures students' perception of their teacher's emotional support. This particular scale measures three distinct features: *Positive Climate or atmosphere* (e.g., "Our instructors want students in this class to respect each other's ideas"), *Teacher's Sensitivity* (e.g., "We can count on our instructors for help when we need it"), and *Regard for the Adolescent Perspective* (e.g., "Our instructors allow us to discuss our work with classmates").

The Utrecht Work Engagement Scale for Students (UWES-9S) which was originally developed by Schaufeli (2017) and adapted by Carmona-Halty et al. (2019) which measures the overall school engagement of students was also used. UWES-9S is a nine-item self-report scale on a 6-point Likert Scale (0 = "Never", 6 = "Always") which is subdivided into three unique features: *Vigor* [VI] (e.g., "When I am doing my work as a student, I feel bursting with energy"), *Dedication* [DN] (e.g., "I am proud of my studies"), and *Absorption* [ABS] (e.g., "I get carried away when I am studying"). The items for each scale are presented in Appendix A.

**Data Analysis**

Table 2 illustrates the test for normality, reliability test, and bivariate correlations results. First, the normality test results yielded skewness and kurtosis values that did not pass the threshold value [-2, 2] across all scales. Therefore, the result posited that all data are not normally distributed. Moreover, the table typifies the reliability test result of each subscale of Teacher Emotional Support and School Engagement. Grounded by the findings, it can be postulated that all subscales are highly reliable with a Cronbach's Alpha value between .74 to .92. Finally, the bivariate correlations for each subscale are also exhibited in the Table, which displayed a significant relationship across all variables ($p < .01$)

**Table 2.** Descriptive statistics, normality estimates, internal consistency coefficients, and bivariate correlations

| Items | M ± SD | Skew | SE | Kurt | SE | *1* | *2* | *3* | *4* |
|---|---|---|---|---|---|---|---|---|---|
| **School Engagement** | 4.39 ± .98 | -.448 | .081 | .267 | .162 | (.74) | | | |
| **Teacher's Sensitivity** | 4.20 ± .68 | -.711 | .081 | .000 | .162 | .50** | (.81) | | |
| **Regard for the Adolescent Perspective** | 4.35 ± .69 | -.880 | .081 | .016 | .162 | .49** | .74** | (.86) | |
| **Positive Atmosphere** | 4.50 ± .59 | -1.071 | .081 | .426 | .162 | .40** | .61** | .62** | (.92) |

** Statistically significant at p < .01.

The *Spearman Rho* (rs) test was carried out to investigate the connection between students' reports of feeling emotionally supported by their teachers and their level of engagement in school activities. It is the non-parametric alternative to the Pearson R test, which determines the degree of correlation based on rank (Akoglu, 2018). In this particular analysis, the study concentrated on the link between the two variables rather than the matching latent constructs that are associated with each of them. As a result, a composite score was determined by adding up the results of each scale. Lastly, a Multiple Regression was carried out in order to investigate the possible cause-and-effect dynamic between the two variables. This particular statistical treatment focuses on determining the degree to which two or more independent variables may accurately predict a single dependent variable (Kang & Zhao, 2020). This inquiry employed the three latent variables of Teacher Emotional Support as a whole model in order to predict its relationship with school engagement. These latent constructs will be investigated independently after.

**Results and Discussion**

The results of the Spearman Rho test are presented in Table 3, which summarizes the data. The correlation between teacher emotional support (TES) and school engagement (SE) was shown to be statistically significant [$r(908) = .519$, $p < .05$]. According to the findings, it is possible to draw the conclusion that if students perceive a higher level of emotional support from their PE teachers, they will be more engaged in their classes. This conclusion is supported by the findings of various scholars who have further investigated the relationship between these two variables (Klem & Connell, 2004; Lam et al., 2012; Pöysä et al., 2019; Ruzek et al., 2016). As an example, Romano et al. (2021b) found that after performing SEM analysis, perceived teacher emotional support is positively related to school engagement. However, the evidence cited above came from primary and secondary school students. Therefore, a thorough inquiry into the relationship between the two variables in the context of higher education to the other set of population is strongly suggested.

**Table 3.** Perceived Teacher Emotional Support vis-à-vis School Engagement

| | | | Teacher Emotional Support | School Engagement |
|---|---|---|---|---|
| Spearman's rho | Teacher Emotional Support | Correlation Coefficient | 1.000 | .519** |
| | | Sig. (2-tailed) | . | .000 |
| | | N | 910 | 910 |
| | School Engagement | Correlation Coefficient | .519** | 1.000 |
| | | Sig. (2-tailed) | .000 | . |
| | | N | 910 | 910 |

**. Correlation is significant at the 0.01 level (2-tailed).

When the independent variables were regressed on the latent constructs that represent students' perceived teacher emotional support, it was found that the three independent variables predict school engagement [$F(3, 906) = 120.508$, $p < .001$]. The dependent variable was regressed on the latent constructs that represent students' perceived teacher emotional support. According to the findings, students' overall school engagement in PE is positively influenced when they have a positive perception of the emotional support they receive from their teachers. The value of $R^2$ for the model was .279, which indicates that the model accounts for 27.9% of the variance in student involvement in school activities. Indeed, emotional support from teachers has a favorable influence on the level of school involvement shown by students, which is consistent with the findings of a number of researchers (Kelly & Zhang, 2016; Pérez-Salas et al., 2021; Ruzek et al., 2016). However, the studies that support the findings of this inquiry were carried out at primary and secondary levels and are not relevant to PE. This finding adds new information to the existing literature about the significant 'value' of emotional support from teachers, specifically PE teachers, which can result in positive school engagement from students. In addition, in order to validate or disprove the outcomes of this inquiry, a comprehensive investigation of the relationship that exists between the two variables is strongly suggested. It is possible to draw the conclusion that $\mathbf{H}_2$ has been supported based on the finding that was discussed earlier.

In addition, the coefficients were analyzed in order to determine the influence that each factor falling under the domain of Teacher Emotional Support had on the dependent variable known as School Engagement. The third hypothesis investigated the influence of positive climate (PC) or positive atmosphere on student engagement in school (SE). After being analyzed, the findings demonstrated that PC predicts SE, which indicates that PC has a significant influence on SE ($\beta = .133$, $t = 2.150$, $p = .032$).

As was discussed previously, positive climate (PC) or positive atmosphere refers to teachers cultivating good exchanges with students as well as teachers' attention to creating safety and academic assistance in the classroom. According to the findings, students have the potential to completely engage themselves in PE lessons if they see a favorable atmosphere being created by their teacher. This hypothesis is backed by research that has been carried out in the past (Djordjic, 2020; Konold et al., 2018; Phuntsho & Dendup, 2021). There is absolutely no question that when instructors work to cultivate a good and secure atmosphere for their students, this can lead to increased engagement in school. As a result, support has been given for $\mathbf{H_3}$.

In addition, the fourth hypothesis investigated the possibility that the Teacher's Sensitivity (TS) had a direct influence on School Engagement (SE). According to the findings, TS is able to accurately forecast SE, suggesting that TS has a direct influence on SE ($\beta = .400$, $t = 6.393$, $p < .001$). According to the definition of TS, it is the manner in which a teacher exhibits knowledge of and receptivity to the intellectual capacities and emotional needs of students. According to the findings, students have the potential to give their utmost attention to the PE classes they are enrolled in if they believe that their instructors are attentive to both their academic and emotional necessities, which is consistent with the findings of other researchers (Spilt et al., 2018; Williford et al., 2013). As a consequence, one might reason that $\mathbf{H_4}$ has been confirmed.

Regard for the Adolescent Perspective (RAP) was tested for its direct influence on School Engagement as the fifth and final hypothesis (SE). According to the findings, it was discovered that RAP forecasts SE, which may be viewed as RAP serving as a lever for SE ($\beta = .330$, $t = 5.333$, $p < .001$), providing support for $\mathbf{H_5}$. The level of intellectualization of RAP can be measured by the extent to which teachers' dialogues with students and classroom work stress the students' interests, motivations and points of view. In other words, when students' interests and points of view are addressed by their teachers in a positive manner, it can lead to increased levels of engagement in PE, which is in line with other published scholarly works on the subject (Kiefer et al., 2015; Sun, 2021). The following findings suggested that Teacher Emotional Support (TES) has a direct and significant effect on students' school Engagement (SE) along with its three latent constructs. Therefore, it is possible to hypothesize that these variables are responsible for the overall relationship between the two variables. The findings are presented in Table 4 below.

**Table 4.** Multiple Regression Results and Hypotheses Testing

| Hypothesis | Regression weights | Beta Coefficient | $R^2$ | $F$ | $t$ | $p$ | Decision |
|---|---|---|---|---|---|---|---|
| $H_2$ | TES → SE | .897 | .279 | 120.508 | - | .000 | Supported |
| $H_3$ | PC → SE | .133 | - | - | 2.150 | .032 | Supported |
| $H_4$ | TS → SE | .400 | - | - | 6.393 | .000 | Supported |
| $H_5$ | RAP → SE | .330 | - | - | 5.333 | .000 | Supported |

**p <.05. TES- Teacher Emotional Support, PC- Positive Climate, TS- Teacher Sensitivity, RAP- Regard to Adolescent Perspective.*

This study demonstrated that students' perceptions of emotional support from their teachers had a direct influence on the level of engagement they have in participating in PE within the framework of higher education. In fact, the emotional support that teachers of PE give to their students has a significant effect on the level of engagement that students exhibit in the classes that they are involved in. As was noted earlier, the vast majority of empirical investigations that provide support for the finding of this inquiry were carried out at the primary and secondary levels in a variety of subject areas. This study encourages other educational researchers from other Higher Education Institutions (HEIs) from a variety of sectors to conduct similar studies in order to investigate the relationship between teachers' emotional support and students' school engagement in PE to a greater depth. More importantly, in light of the findings, this study advises a deeper and more comprehensive investigation into the direct influence that TES has on SE by taking each aspect of school engagement separately. According to Widlund et al. (2021) and Salmela-Aro and Upadyaya (2017), school engagement along with its three domains may be used as a global construct that is highly applicable for younger students in primary or secondary education. On the other hand, these three domains may seem to become separated among young adolescents, such as college students.

## Conclusion

The current study took a sample of students from City College of Angeles in the Philippines to investigate the association between teachers providing emotional support to their students and the level of engagement

those students show in their PE classes. The findings provide evidence to support the hypotheses that were investigated in this study. This shed light on the crucial role of emotional support that is being given by PE teachers for their students' school participation, especially in a higher education (local college) setting. According to prior research, the availability of contextual resources (such as emotional support from teachers) may contribute to a better degree of engagement on the part of students. In keeping with this idea, the research emphasized the importance of positive relationships in the classroom, such as the emotional support provided by instructors. To put it another way, the level of emotional support offered by instructors should not be ignored under any circumstances. In-depth training should be available to teachers at the college if the institution is to fulfill its mission of bolstering their ability to deliver better emotional support to the students in their classrooms. As a result, policymakers and practitioners need to devise interventions to increase the knowledge and abilities of teachers, which will be of tremendous benefit to their respective professional careers.

In addition, the inclusion of additional exogenous variables and predicting variables (or even mediating or moderating variables) that were not included in this current investigation may be tested to deepen the understanding of what other aspects play an important role in the relationship between teacher emotional support and school engagement. Following this, a multi-informant approach could be used to collect reports from PE teachers working at a wide range of Higher Education Institutions. These teachers have the potential to deliver a significant amount of scholarly information regarding the how they offer emotional support to students, which in turn strengthens students' engagement. The gathering of useful information from PE teachers may also serve to contribute to the formulation of a more practical approach that is highly suitable for undergraduate students, as well as to fill in the paucity of work published on this particular topic.

Finally, there are several caveats to this investigation that need to be taken into account. As a first limitation, this research only included a small number of undergraduates at City College of Angeles. Therefore, its findings may not apply to students at other universities in the country. Since this is quantitative research, a more in-depth and sophisticated strategy, such as a qualitative or mixed-method approach, is strongly recommended for investigating other characteristics not captured by the instrument utilized in this study.

**Ethics Approval and Informed Consent**

The respondents were asked to give their consent by agreeing to the statement attached in the Google Forms. Additionally, respondents were advised about the objectives of the study, its instruments, and the variables being measured for the study. Minor risks answering the online survey were also enumerated. Respondents were free to withdraw or to ask for debriefing at any time.

**Competing interests**

No competing interest.

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# Appendix A

## Teachers' Emotional Support Scale

**Positive Climate (PC)**

PC1- *Our Physical Education instructors want students in this class to respect each other's ideas*
PC2- *Our Physical Education instructors treat everyone in this class fairly*
PC3- *Our Physical Education instructors want the students in this class to work well together*
PC4- *Our Physical Education instructors do not allow students to make fun of other students' ideas in class*
PC5- *Our Physical Education instructors want all students to feel respected*

**Teacher's Sensitivity (TS)**

TS1- *Our Physical Education instructors care about how we feel*
TS2- *We can count on our Physical Education instructors for help when we need it*
TS3- *Our Physical Education instructors consider students' feelings*
TS4- *Our Physical Education instructors take a personal interest in students*
TS5- *Our Physical Education instructors are available to help students when we have questions*
TS6- *Our Physical Education instructors take the time to completely answer our questions*

**Regard to Adolescent Perspective (RAP)**

RAP1- *Our Physical Education instructors encourage us to help other students with their works*
RAP2- *Our Physical Education instructors allow us to discuss our work with classmates*
RAP3- *My Physical Education instructors listen to what I have to say*
RAP4- *Our Physical Education instructors encourage us to share ideas with one another in class*

**Utrecht Work Engagement Scale for Students (SE)**

UWES1- *When I am doing my work as a student, I feel bursting with energy*
UWES2- *I feel energetic and capable when I'm studying or going to class*
UWES3- *I am enthusiastic about my studies*
UWES4- *My studies inspire me*
UWES5- *When I get up in the morning, I feel like going to class*
UWES6- *I feel happy when I am studying intensely*
UWES7- *I am proud of my studies*
UWES8- *I am immersed in my studies*
UWES9- *I get carried away when I am studying*

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