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個人與社會責任模式在體育系學習評量課程的應用

(配合課程名稱/學習評量)

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Applying TPSR model in "learning assessment" course for the students at department of physical education and kinesiology

Content

Research Motive and Purpose

The course "Learning Assessment" is a required subject for students majoring in physical education and kinesiology. The students enrolled in this course are all from the same department, with half being teacher education students and the other half non-teacher education students. For teacher education students, the content of the course is essential for their professional development in teaching careers. For non-teacher education students aiming to enter the sports industry, the course also contributes to building professional expertise in sports instruction or coaching. Despite the significant importance of this course, the diverse backgrounds and needs of students in the physical education and kinesiology department present a considerable challenge for instructors in terms of providing appropriate course design and instruction.

During my experience teaching the "Learning Assessment" course, I encountered several issues, including a lack of connection between course content and students' experiences, poor classroom behavior and lack of respect among peers, insufficient effort from students, and unsatisfactory group collaboration. These issues not only affected the quality of teaching but also hindered the expected learning outcomes. Although these problems may also arise in other courses within the department, "Learning Assessment" is a mandatory course for physical education and kinesiology students. As the instructor responsible for this course, who holds high expectations for its learning outcomes, overcoming these recurring issues is a crucial challenge in teaching practice.

To elaborate on the issues encountered, the first problem is the "lack of connection between course content and students' experiences." The course content, such as assessment theory, reliability and validity, test design and review, and diverse assessment methods, primarily revolves around classroom-based instruction. Although examples from physical education teaching or sports instruction are incorporated during the lessons, the content remains difficult for teacher education students to relate to, as they lack practical teaching experience. Similarly, for non-teacher education students, the content fails to resonate with their experiences. Therefore, using a teaching practice research project to make the "Learning Assessment" course more relevant to the experiences of physical Education students and guiding them to understand both theoretical and practical aspects of the profession is particularly meaningful.

The second issue is "poor classroom behavior and lack of respect among peers." In previous classes, some students would engage in chatting, sleeping, or playing mobile games during lectures. Although these behaviors would temporarily cease after being addressed, they often reappeared later. Additionally, during discussions between teachers and students or among peers, if a student expressed an exaggerated or unreasonable opinion, some classmates would respond with ridicule or mockery, indicating a clear lack of respect for their peers. Overall, these behaviors negatively impact the quality of instruction in the "Learning Assessment" course and the students' learning outcomes.

The third issue is the "insufficient effort from students." Compared to sports skills courses or other professional courses in physical education, students in this department tend to put in noticeably less effort in the "Learning Assessment" course. Despite the instructor emphasizing the course's benefits for both teacher education and non-teacher education students' professional development and delivering the content in a clear and accessible manner, many students still participate in a passive and disengaged manner. Their effort in preparing for exams and completing assignments also leaves much room for improvement.

The fourth issue is the "unsatisfactory group collaboration." In previous classes, group discussions and tasks requiring cooperation often suffered from poor collaboration. For example, during group discussions, it was common for most group members to passively receive information without actively participating, leaving a single group member to independently generate ideas and present them. This issue also frequently occurred in group project preparation, with some students complaining about their group members' lack of participation and cooperation, resulting in the responsibility falling on specific individuals. These challenges in group collaboration significantly undermine the potential for peer cooperation to enhance learning outcomes.

This study adopts the Teaching Personal and Social Responsibility (TPSR) model developed by Hellison (2003, 2011) to address the aforementioned issues. The TPSR model aims to teach students to take responsibility for themselves and others through physical activities. The model operates through five structured steps in each lesson: "relational time," "awareness talk," "physical activity plan," "group meeting," and "self-reflection time." These steps are designed to help students achieve five responsibility goals: "respect for the rights and feelings of others," "effort and cooperation," "self-direction," "helping others and leadership," and "transfer outside the gym" (Hellison, 2011). Hellison (2003) summarized his experience in developing the TPSR model, noting that the first responsibility goal of "respect" and the second goal of "effort and cooperation" are relatively easier to achieve. In contrast, achieving the third goal of "self-direction" and the fourth goal of "helping others and leadership" requires more time, while the fifth goal of "transfer" usually takes the longest time and is the most challenging to accomplish. Given that the implementation period of the TPSR model in this project is only one semester and must address the specific issues encountered in the classroom, the evaluation of effectiveness will focus solely on the first responsibility goal of "respect" and the second goal of "effort and cooperation."

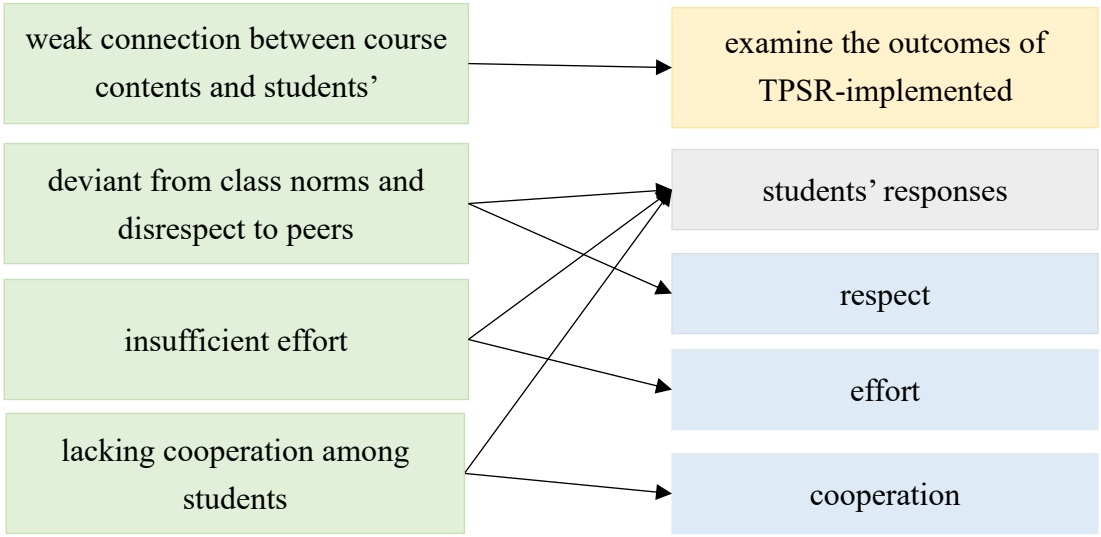
The TPSR model has already been widely applied in physical education classes across various countries and cultures (Gordon & Beaudoin, 2020; Richards & Shiver, 2020; Whitley, Massey, Camiré, et al., 2019). Over time, numerous researchers have extensively examined the effectiveness of the TPSR model in different contexts, activities, and age groups, with empirical support found for the five outcomes of respect, effort and cooperation, self-direction, helping others and leadership, and transfer (see Pozo, Grao-Cruces, & Perez-Ordas, 2018; Richards, Jacobs, Ivy, & Lawson, 2020, for an overall review). Notably, recent studies have also demonstrated the anticipated effectiveness of the TPSR model in university-level physical education courses (Huo, 2021), academic courses (Camerino, Valero-Valenzuela, Prat, Manzano Sánchez, & Castañer, 2019; Manzano-Sánchez, González-Víllora, & Valero-Valenzuela, 2021), and teacher education programs (Manzano-Sánchez,

Belando-Pedreño, & Valero-Valenzuela, 2022; Richards, Jacobs, Ivy, & Lawson, 2020). A large body of empirical research indicates that the TPSR model is both effective and applicable.

Overall, the findings from studies on the TPSR model suggest that its features and effectiveness align well with the challenges encountered by the applicant in the context of teaching learning assessment. Applying the TPSR model to required courses in the physical education and kinesiology department can help address the issue of "lack of connection between course content and students' experiences" through practical examples and physical activities. Furthermore, it can contribute to resolving classroom issues such as "poor classroom behavior and lack of respect among peers," "insufficient student effort," and "unsatisfactory group collaboration."

Research Question

The purpose of this study is to apply the TPSR model to a learning assessment course and examine its effectiveness. In response to issues encountered in the teaching environment, the quantitative evaluation of effectiveness will focus on students' levels of effort, respect, and cooperation, while qualitative interviews will be conducted to understand students' feelings and opinions. The connection between motivation and purpose is illustrated in the following diagram:



Literature Review

(1) Basic Concepts and Framework of the TPSR Model

The Teaching Personal and Social Responsibility (TPSR) model, proposed by Hellison (2003, 2011), aims to cultivate students' sense of responsibility through physical activities. The core idea of the TPSR model is to teach students to be responsible for themselves and others. Hellison (2011) believes that students' development of responsibility depends on their upbringing and learning environment. In other words, students' attitudes, intentions, and behaviors regarding responsibility can be reinforced through learning (Hellison & Walsh, 2002; Hellison, 2011). Initially implemented in

community activities to support school education, the TPSR model has gradually evolved over time and gained recognition from scholars and educators, being applied in various fields (Martinek & Hellison, 2016). Although the model's prototype emerged in 1978 and was established in 2003, its core remains centered on five main goals/stages: respect for others, effort and cooperation, self-direction, helping others and leadership, and transfer. The elements of respect for others include self-control, peaceful conflict resolution, and accepting others as partners; effort and cooperation involve self-motivation, exploration of new tasks, and harmonious relationships with others; self-direction encompasses completing tasks independently, setting goals, and resisting peer pressure; helping others and leadership involve caring, compassion, sensitivity, responsiveness, and inner strength; and transfer includes applying learned behaviors in daily life and serving as a role model for others (Hellison, 2011).

Regarding implementation, Hellison (2011) proposed a five-step intervention process: "relational time," "awareness talk," "physical activity plan," "group meeting," and "self-reflection time." The first step, "relational time," involves educators engaging in brief conversations to understand students and build relationships. The second step, "awareness talk," emphasizes the importance of taking responsibility for oneself and others and encourages students to set positive behavioral goals. The third step, "physical activity plan," involves educators using well-designed activities to guide students in displaying positive behaviors. In the fourth step, "group meeting," educators facilitate discussions among students about their performance, as well as provide feedback on activities, designs, and rules. The fifth step, "self-reflection time," offers students an opportunity to evaluate and improve their own performance. Additionally, Hellison proposed four implementation strategies for the TPSR model: "cognitive strategies," where teachers help students understand course goals, the five responsibility stages, and their responsibility for their own and their peers' development and the progression of the physical education class; "direct teaching," where tasks related to different responsibility levels are assigned to students; "individual decision-making," where students are given opportunities for self-reflection and autonomy in the classroom, with teachers playing a supportive role; and "group decision-making," where students are guided in group discussions, fully expressing and exchanging opinions, and deciding on classroom goals, difficulty levels, and practice methods through discussion. Classroom issues are also addressed through proposed solutions.

Numerous studies have found that implementing the TPSR model helps strengthen students' positive behaviors (e.g., Gordon & Beaudoin, 2020). The effectiveness of the TPSR model has been validated through decades of field testing, with researchers both domestically and internationally demonstrating its positive impact on students at various levels of physical education (Pan et al., 2019; Merino-Barrero et al., 2019). In recent years, the implementation of TPSR has even expanded to academic courses (Camerino et al., 2019; Manzano-Sánchez et al., 2021) and university teacher education programs (Manzano-Sánchez et al., 2022; Richards et al., 2020), with empirical research establishing its effectiveness.

(2) Research on the TPSR Model and the Applicability to Learning Assessment

Since its establishment in 2003, the TPSR model has garnered significant attention from scholars

and educators and has become a crucial model for teaching personal and social responsibility through physical activities. Extensive empirical research has demonstrated the learning outcomes of implementing TPSR across different contexts, levels, and courses. The following sections will explore the implementation areas, target populations, implementation effects, and extended research directions, as well as explain the basis for applying the TPSR model to the "learning assessment" course in this project. In terms of implementation areas, given the content and development of the TPSR model, its primary application has been in physical education or extracurricular sports programs. For example, in the early 2000s, the large-scale project "Project Effort" was implemented in after-school sports clubs for disadvantaged youth (Martinek & Schilling, 2003). As the effectiveness of Project Effort gradually became apparent, more extracurricular activities began incorporating the TPSR model, such as sports clubs (Hammond-Diedrich & Walsh, 2006), coaching clubs (Walsh, 2007; Walsh, Ozaeta, & Wright, 2010), and career clubs (Walsh, 2008). Increasingly, formal physical education classes in schools have adopted the TPSR model, spanning multiple countries, including New Zealand (Gordon, 2010), Spain (Escarti et al., 2010), the United States (Mowling et al., 2011), and South Korea (Jung & Wright, 2012). As the effectiveness of the TPSR model in after-school sports clubs and school-based physical education classes has been validated, its application has broadened. For example, Wright et al. (2004) integrated the TPSR model into adaptive physical education, finding it beneficial for inclusive teaching. Camerino et al. (2019) applied TPSR to history and Spanish language courses, while Manzano-Sánchez et al. (2021) explored its effectiveness in Spanish and mathematics courses. Beaudoin (2012) used action research to investigate the benefits of TPSR for in-service teacher training, while Baptista et al. (2019) applied the TPSR model to pre-service and in-service teacher training, exploring behavioral and learning changes through qualitative research. These studies indicate that the TPSR model is not limited to physical education but can be widely applied in various learning domains.

Regarding target populations, the TPSR model was initially used with marginalized youth aged 9-18 participating in after-school sports clubs (e.g., Balderson & Sharpe, 2005; Escartí et al., 2006; Escartí et al., 2010; Wright et al., 2012; Barker & Forneris, 2012). Over time, its application expanded to students in elementary and secondary school physical education classes (e.g., Cecchini et al., 2007; Gordon, 2010; Llopis-Goig et al., 2011; Martínez et al., 2012; Martínez et al., 2013; Merino-Barrero et al., 2019). As the effectiveness of the TPSR model continued to be verified, its application extended to high school students (e.g., Wright & Burton, 2008; Wright et al., 2010), and even university students (e.g., Huo, 2021). In recent years, research has expanded beyond student surveys to include teachers' perceptions of TPSR implementation (Gordon et al., 2012) and whether TPSR benefits teacher training and professional development (Hemphill et al., 2013). Pre-service teachers (i.e., teacher candidates) have also become a focus of TPSR research (e.g., Gordon et al., 2012; Baptista et al., 2019; Manzano-Sánchez et al., 2022). Overall, the effectiveness of TPSR in after-school sports clubs and elementary and secondary school physical education classes has been confirmed, but research involving university students and teacher candidates remains relatively scarce. The methods used for evaluation also vary, making it difficult to definitively assess its effectiveness or its relationship with other variables.

In terms of learning outcomes, numerous studies have provided empirical evidence supporting the effectiveness of the TPSR model. For students, TPSR implementation has been shown to improve self-control and enjoyment (Cecchini et al., 2003, 2007), empathy, confidence, self-esteem, and teamwork (DeBusk & Hellison, 1989), caring and conflict resolution (Balderson & Sharpe, 2005), responsibility (Escartí et al., 2010; Gordon, 2010), a sense of belonging (Ward et al., 2012), and self-efficacy (Escartí et al., 2010). TPSR has also been found to reduce disruptive behavior (Escartí et al., 2006), rule violations, and poor sportsmanship (Cecchini et al., 2007), and further improve attendance, reduce tardiness, and enhance academic performance (Wright et al., 2010), while increasing students' aspirations and motivation for their academic and professional futures (Walsh et al., 2012). Clearly, courses that incorporate the TPSR model can teach students the responsibility principles it promotes, leading to improvements in both behavior and learning within the school context, regardless of the stage. In addition to its impact on students, previous studies have shown that TPSR implementation also affects teachers. Beaudoin (2012) highlighted that the teaching strategies based on the TPSR model empower teachers through self-monitoring, provide opportunities for success, set expectations, and foster mutual respect between teachers and students. Similarly, Lee (2012) noted that after implementing the TPSR model, teachers' focus shifted from themselves and tasks to aspects more related to influence. Teachers also gained a clearer understanding of responsibility-based teaching strategies, recognizing their positive impact on students, and integrated these strategies into their teaching practices, thereby enhancing their professional development.

In terms of extended research, recent studies have concentrated on in-service teachers and pre-service teachers regarding the TPSR model. For instance, Richards and Gordon (2017) explored the impact of socialization factors on physical education teachers' learning and utilization of the TPSR framework. They found that although teachers learn the TPSR model during pre-service training, they still need to intentionally implement TPSR-based courses, as they often find it challenging to empower students and move away from traditional, directive teaching methods. Walsh (2008) emphasized that pre-service teachers not only need to understand the TPSR model but also require in-depth experiences with it to successfully adopt this teaching approach. Other studies have pointed out that despite having access to TPSR during pre-service or in-service training, pre-service teachers still struggle to independently apply the framework (Baptista et al., 2019). Therefore, more effective teacher training methods are needed, incorporating practical experience with the model to achieve the anticipated outcomes of TPSR.

In summary, the TPSR model aligns closely with the objectives of the "Learning Assessment" course in this project. Numerous studies have supported the model's effectiveness in promoting effort, respect, and cooperation, reflecting the potential of TPSR in addressing classroom challenges in learning assessment.

Teaching Planning

The Learning Assessment course is divided into four categories: "Assessment Demonstration," "Assessment Principles," "Multiple Assessments," and "Outcome Evaluation." Specifically, the first

week employs direct teaching methods to introduce the course and explain the core content of learning assessment. From the second to the fifth week, experts from various fields, such as general education, physical education, and sports training, are invited to conduct lectures, directly demonstrating how assessments are conducted in their respective fields, allowing students to gain insights into professional assessment practices. The sixth to ninth weeks focus on assessment principles, with both classes each week led by the instructor. The content covers the concepts and history of learning assessment, basic concepts of reliability and validity, methods for testing reliability and validity, and data analysis of reliability and validity. Weeks 10 to 13 are dedicated to multiple assessments, with one session led by the instructor and the other by students each week. The topics include various forms of assessments: paper-and-pencil tests, portfolio assessments, behavioral assessments, and other assessment methods. Weeks 14 to 17 focus on outcome evaluation, with student-led team presentations on learning assessments during both sessions each week. The 18th week is reserved for a final review.

The TPSR model is primarily used in the teaching process. Each class follows five fixed steps: "Relational Time," "Awareness Talk," "Physical Activity Plan," "Group Meeting," and "Self-Reflection Time." However, during the second to fifth weeks, only "Relational Time," "Awareness Talk," "Group Meeting," and "Self-Reflection Time" will be conducted, with the "Physical Activity Plan" replaced by expert reports and demonstrations. For the remaining weeks, the TPSR model's five steps will be fully implemented, and the responsibility for leading the class will gradually shift from the instructor to the students in accordance with the model's empowerment principles.

For example, in the second week, during "Relational Time" before and at the beginning of class, the instructor will engage in informal conversations with students, such as understanding their academic goals and sports training progress, while offering timely encouragement and affirmation. During "Awareness Talk," the importance of academic learning assessments and their relationship to future teaching careers will be shared with students, along with clear communication of responsibility goals related to respect, effort, and cooperation. Students will be encouraged to set high standards for themselves. Next, the co-teaching expert will demonstrate and explain how assessments are conducted in their field, providing students with direct exposure to professional assessment practices. During "Group Meeting," students will discuss relevant issues in academic learning assessment and offer feedback, while encouraging group members to support one another. This will be followed by guiding students to reflect on and discuss their own performance, the performance of their peers, and that of the instructor, providing constructive suggestions. Finally, during "Self-Reflection Time," students will be asked to close their eyes and reflect on their performance that day, particularly whether they met the responsibility goals of respect, effort, and cooperation, and how they can further improve.

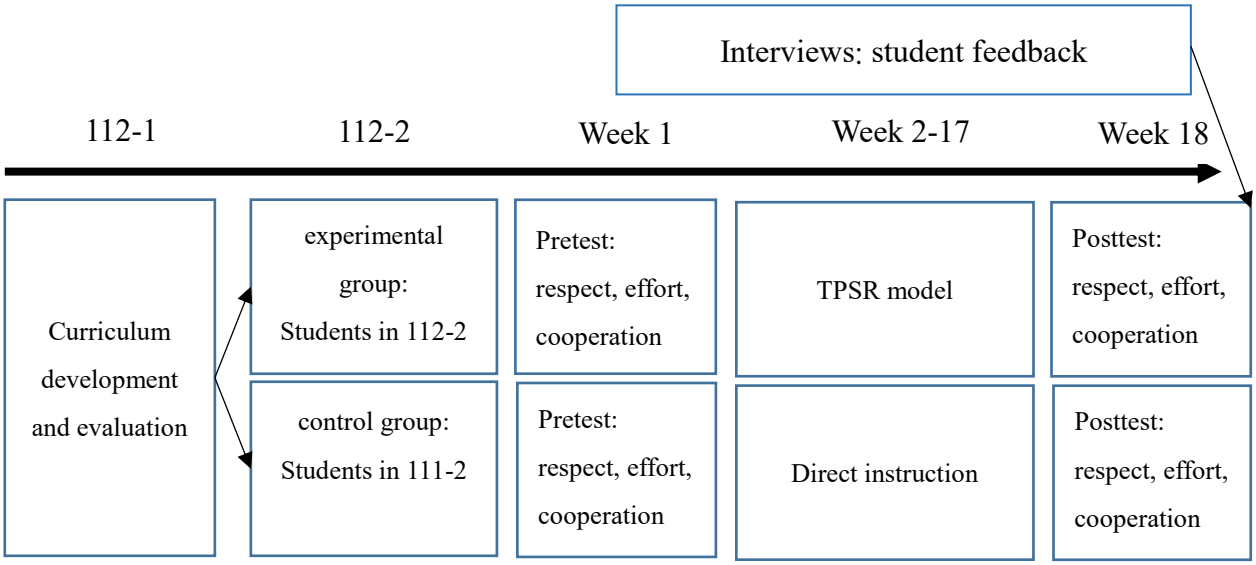
For the topic of reliability and validity, the implementation of "Relational Time," "Awareness Talk," "Group Meeting," and "Self-Reflection Time" follows the same structure as previously mentioned. During "Physical Activity Plan," concepts and principles of reliability and validity will be illustrated through basketball activities or practical examples. The locations of shots and various fundamental movements will be used to explain and verify these concepts, aiming to strengthen

connections with students' experiences through physical education activities and thereby facilitate effective learning.

Research Methodology

(1) Research Design

This study employs a quasi-experimental design to examine the effectiveness of implementing the TPSR model in the Learning Assessment course. As illustrated in the diagram below, the qualitative approach involves individual interviews to gather students' perceptions and feedback on the TPSR model's application within the course. the quantitative approach compares the scores of respect, effort, and cooperation between the experimental group and the control group.



(2) Participants and Procedure

The experimental group consists of students enrolled in the course during the 112th academic year, with a total of 35 participants, including 22 males (62.85%) and 13 females (37.15%). Due to the nature of the course, no other class was available to serve as a control group during the same semester. Therefore, the study collected pretest and posttest quantitative data during the 111th academic year as a basis for subsequent data analysis and comparison. Students who were enrolled in both the experimental and control groups due to retaking the course were excluded from the data analysis to ensure the accuracy of the results. Ultimately, the control group included 44 students, with 29 males (65.90%) and 15 females (34.10%).

After the course concluded, interviews were conducted with students who participated in the TPSR model within the Learning Assessment course, selected through random invitation. Prior to the interviews, participants were informed of their rights, particularly that the interview content would not affect their course grades, and that although the interview would be recorded, the content would remain confidential and not be disclosed to other instructors or peers. The interview data would be used solely for academic research purposes. The study did not pre-determine the number of interviewees, and invitations continued until theoretical saturation was reached, meaning no new information emerged from the data analysis (Axinn & Pearce, 2006). In the quantitative data

collection, a pretest was administered before the first week of the course, and a posttest after the 18th week. Informed consent was obtained from students prior to the questionnaire, and they were verbally reminded that the data would only be used for academic research and would remain confidential and unrelated to their grades. Additionally, students were informed that they could withdraw from the survey at any time without penalty. Overall, these measures ensured that students could participate in the survey in a stress-free environment.

(3) Instruments

The quantitative instruments used in this study are the Respect, Effort, and Cooperation subscales from the "Student Responsibility Inventory for Physical Education" (SRIPES) (Hsu, Pan, Chou, Lee, & Lu, 2014). The item descriptions were adapted from physical education to learning assessment. For example, the original item "I do not make fun of my classmates in physical education class" was modified to "I do not make fun of my classmates in the Learning Assessment class." The specific descriptions of each subscale are as follows: The "Respect" subscale contains 4 items (e.g., "I do not make fun of my classmates"), The "Effort" subscale contains 4 items (e.g., "I focus on learning"), and The "Cooperation" subscale contains 4 items (e.g., "I play my role well in the team"). All items use a 6-point Likert scale. The original scale was developed by Hsu, Pan, Chou, Lee, and Lu (2014) and provided preliminary evidence of reliability and validity through exploratory factor analysis, confirmatory factor analysis, and criterion-related validity. Subsequent research by Hsu, Chou, and Pan (2014) also confirmed the reliability and validity of the scale with a new sample.

The qualitative tools used include paper, pens, and a recorder. The researcher holds a PhD in Sports Education and has extensive experience in conducting and publishing qualitative research, with the capability to conduct individual interviews. The interview outline is mainly based on previous research on the TPSR model (Gordon, 2010; Wright & Burton, 2008) and includes questions such as "What aspects of the course content or learning experience did you find enjoyable/unpleasant?" "In terms of respect/effort/cooperation, what did you do well? What areas need improvement?" "How do you feel your classmates did in respect/effort/cooperation?" and "What is your impression of the TPSR model?" Additionally, the researcher will ask several questions related to the Learning Assessment course, such as "What is your understanding of the professional and practical aspects of learning assessment?" "What are your learning experiences from the Learning Assessment course?" and "Do you have any suggestions for implementing the TPSR model in the Learning Assessment course?"

(4) Data Analysis

For the quantitative data, the collected questionnaires will be initially reviewed. Questionnaires that exhibit obvious signs of non-serious responses (e.g., patterned responses) or fail reverse-item checks will be considered invalid. Valid questionnaires will be analyzed using SPSS statistical software. The data analysis for valid questionnaires will involve covariance analysis, with Levene's test used to confirm homogeneity between the two groups. Pretest scores for respect, effort, and cooperation will serve as covariates, posttest scores as dependent variables, and group (experimental

vs. control) as the fixed factor. The significance level is set at .05, and Cohen's η^2 is used as the indicator of effect size, with values greater than .06 considered indicative of a medium or larger effect size (Cohen, 2013).

For interview data analysis, Charmaz's (2001) recommendations will be followed. First, the audio recordings will be transcribed verbatim, and the transcripts will be divided into segments according to the interview questions. The transcripts will then be repeatedly read to reconstruct the overall interview process and concepts. Next, sentences or paragraphs conveying similar concepts will be extracted from the transcripts and identified as meaning units. This step will be independently conducted by the researcher and two additional analysts. Subsequently, the analysts will each identify the characteristics of the meaning units and perform preliminary coding and classification, resulting in low-level themes. The analysts will then develop sub-themes from the low-level themes based on similar principles, and further develop higher-level themes until no additional themes can be identified. Finally, the analysts will compare their theme structures, discuss any discrepancies, and arrive at a mutually agreed-upon framework, which will constitute the final version of the analysis results.

Teaching and Research Outcomes

(1) Outcomes

In "Effort," as shown in Figure 2, the experimental group had a pretest mean of 4.72 and a posttest mean of 5.33, while the control group had a pretest mean of 4.75 and a posttest mean of 4.77. The Levene's test for homogeneity of variances was not significant, indicating no significant difference in data dispersion between the two groups. Covariance analysis results show that after controlling for the influence of pretest scores on posttest scores, the main effect of group indicates that the experimental group demonstrated significantly greater improvement than the control group ($F = 16.30$; $p = .00$; $\eta^2 = .18$). This indicates that implementing the TPSR model significantly enhanced students' effort levels.

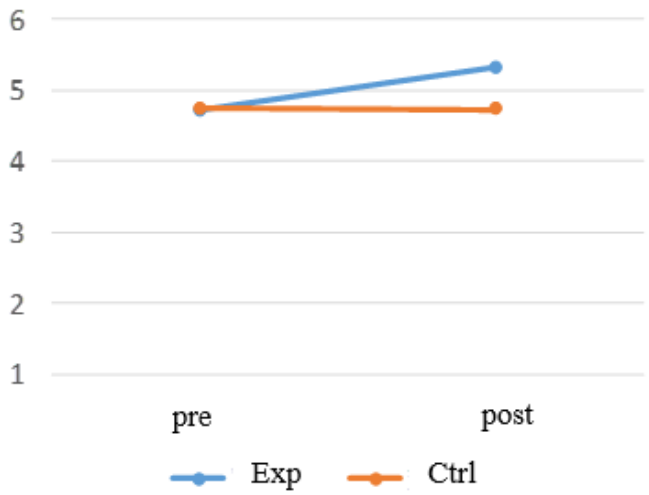


Fig.2 Changes in pretest and posttest scores for effort in the experimental and control groups

In "Respect," as shown in Figure 3, the experimental group had a pretest mean of 5.00 and a posttest mean of 5.15, while the control group had a pretest mean of 5.01 and a posttest mean of 4.11. The Levene's test for homogeneity of variances was not significant, indicating no significant difference in data dispersion between the two groups. Covariance analysis results show that after controlling for the influence of pretest scores on posttest scores, the main effect of group indicates no significant difference in improvement between the experimental and control groups ($F = .14$; $p = .71$; $\eta^2 = .02$). This suggests that the TPSR model did not have a significant effect on improving students' respect levels.

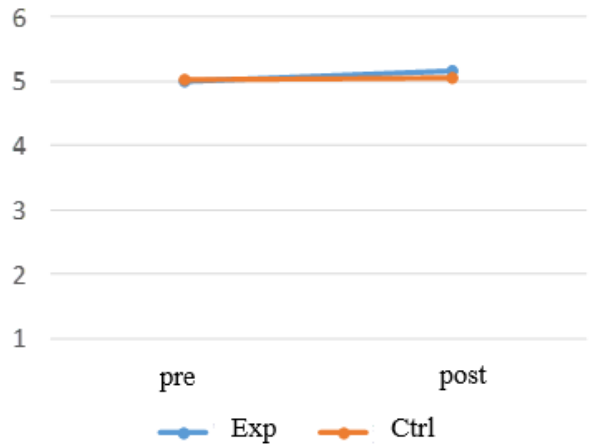


Fig.3 Changes in pretest and posttest scores for respect in the experimental and control groups

In "Cooperation," as shown in Figure 4, the experimental group had a pretest mean of 4.62 and a posttest mean of 5.42, while the control group had a pretest mean of 4.97 and a posttest mean of 5.01. The Levene's test for homogeneity of variances was not significant, indicating no significant difference in data dispersion between the two groups. Covariance analysis results show that after controlling for the influence of pretest scores on posttest scores, the main effect of group indicates that the experimental group demonstrated significantly greater improvement than the control group ($F = 15.81$; $p = .00$; $\eta^2 = .17$). This indicates that implementing the TPSR model significantly enhanced students' cooperation levels.

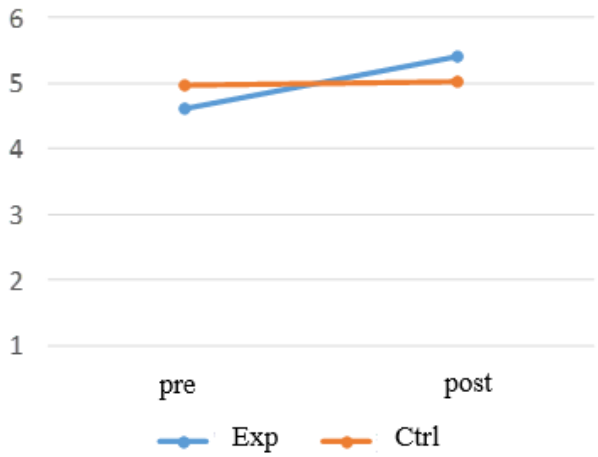


Fig.4 Changes in pretest and posttest scores for cooperation in the experimental and control groups

(2) Teaching Reflections

The quantitative results indicate that students in the TPSR (Teaching Personal and Social Responsibility) model group showed significantly greater improvements in effort and cooperation compared to the control group, which received direct instruction. However, there was no significant difference in the change in respect between the two groups. Overall, these findings partially support the effectiveness of applying the TPSR model in learning assessment courses. Previous research has demonstrated that the TPSR model is effective in various contexts, significantly enhancing students' positive behaviors, affective outcomes, and learning achievements. The TPSR framework, by incorporating physical activity programs, enables students to learn theoretical knowledge of assessment, such as concepts of reliability and validity, in a familiar physical education setting. This contextualized learning approach prevents the difficulties and gaps in understanding that can arise from purely theoretical instruction.

Additionally, previous studies have supported the notion that implementing the TPSR model helps students put in more effort. The model emphasizes responsibility, which is reinforced through the repetitive steps of each lesson, thereby enhancing students' effort levels. The TPSR model differs from traditional teaching methods by granting students greater autonomy. Research has found that implementing the TPSR model can increase students' sense of relational satisfaction, creating a more supportive interpersonal context. By emphasizing the importance of helping and leading others, and through strategies like group meetings and self-reflection time, the model can effectively improve communication, understanding, and mutual cooperation among students, addressing issues of suboptimal group collaboration.

However, regarding respect, the results of this study show no significant improvement, which is a point worth discussing. The TPSR model, unlike traditional teaching methods, grants students greater autonomy. Previous studies have found that implementing the TPSR model enhances learners' sense of relational satisfaction and fosters a more supportive interpersonal context. By emphasizing respect for others, helping, and leading, and through strategies like group meetings and self-reflection time, the model should effectively improve communication, understanding, and mutual cooperation among students, which could address issues related to poor group collaboration. Additionally, teaching strategies that involve teacher-assisted group discussions and peer feedback can enhance student communication and effectively address conflicts, potentially resolving issues of insufficient respect for peers. Besides, the study results indicate that the expected improvement in respect was not achieved. One possible reason is that a severe earthquake before midterm caused significant damage to the school, including classroom destruction, prompting the school to switch to online teaching for the remainder of the semester to ensure student safety. During online teaching, many highly interactive elements of the TPSR model could not be implemented. Similarly, during student questions, opinion sharing, and group presentations, the teacher could not fully observe other students' respect through the camera, making it difficult to provide timely guidance or suggestions. As a result, the expected improvement in respect did not materialize. The researcher believes that although online teaching infrastructure and adaptation capabilities were established during the COVID-19 pandemic, further exploration is needed to effectively implement all TPSR model steps in an online setting.

Future efforts should focus on developing an adapted model for online teaching, such as using remote assistance software to randomly monitor students or using text reminders to encourage students to meet respect goals.

Feedback from the school revealed that students generally acknowledged the TPSR model's functionality but also pointed out some limitations. For example, some students found the standardized steps repetitive and monotonous, highlighting an area for improvement in the TPSR model, particularly when applied to academic courses. Therefore, making TPSR-based lessons more engaging is undoubtedly a research topic that the researcher will continue to explore.

Finally, as shown in the attached materials, students' final reports covered a wide range of topics, and the overall quality of the reports met expectations. This indicates that students have gained a substantial understanding of the knowledge and content of the learning assessment course and have acquired basic application skills. However, the diverse range of topics also led to a lack of coherence, making it difficult for students to focus during other groups' presentations. Therefore, the researcher suggests confirming the topics and content of each group's report earlier, arranging the presentation order more coherently, which will help students gain more contextual knowledge.

(3) Student Feedback

In terms of "Effort," qualitative interview analysis revealed that students felt their effort levels increased as their understanding of learning assessment deepened, which also boosted their confidence. The teacher's explanations and encouragement played a significant role in this improvement. Initially, students expected the course to be filled with mathematical formulas or theories, but the diverse range of topics and the professionalism of guest speakers helped increase their effort levels.

- "I originally thought it would be all boring theories and formulas, but after integrating it with sports, I actually learned it all, and my confidence increased significantly" (B04).
- "The guest speakers were all very high-quality, which made me want to listen seriously, and I wanted to understand what I didn’t get" (B06).
- "The teacher explained why we needed to learn these things, and I believe I will be able to do it" (E05).
- "The final report allowed us to choose a topic we were interested in, which was great! It made me more invested in preparing the report" (C03).

Regarding "Respect," students believed that in physical classes, because the teacher was present or in front of guest speakers, there was less obvious disrespect. However, after switching to online teaching, there was more chatting on Line, dozing off, or playing mobile games. During discussions or when listening to presentations, students were more likely to sneer or ignore peers they disagreed with.

- "With the teacher or guest speaker in front, you definitely have to RESPECT them" (D05).

- "In front of the computer, since no one is watching, you don’t really care about what others are saying" (A09).
- "Sometimes, classmates are too boring, or you don’t get along with the person speaking, so you just don’t listen" (E04).
- "You might secretly mock them, anyway, they can’t hear it" (D04).

In terms of "Cooperation," students felt that the model’s design allowed group members to cooperate with each other. Although there were still some passive members, most people divided the work adequately, and there were fewer issues with unequal workload distribution.

- "We distributed the work according to the rules, and the final result was pretty good" (A08).
- "The topic was decided together, so there’s no reason for anyone to dislike it" (D10).
- "Everyone knew what needed to be done, and we had to work together to complete it. Although some people weren’t very proactive, they didn’t intentionally disrupt things" (E06).

Recommendations and Reflections

The researcher previously encountered issues in the Learning Assessment course, such as "students' poor classroom behavior and lack of respect for peers," "students' insufficient effort in class," and "suboptimal group cooperation." Through the application of the TPSR model, it was found that the model effectively addressed issues related to insufficient effort and poor cooperation. However, it did not achieve the expected results in improving classroom behavior and respect for peers. Nonetheless, the overall findings suggest that the TPSR model is applicable to Learning Assessment courses in physical education and sports science programs. Given the unique background of students in these programs, similar situations may arise in other subject areas, and it is recommended that future studies explore the application of the TPSR model in other courses.

In the current semester, observations and feedback from students revealed that when teaching shifted to an online format, many of the intended functions of the instructional design could not be fully realized. Therefore, future efforts should focus on developing an adapted model for online teaching that leverages technology-assisted teaching tools. Additionally, the repetitive steps within the TPSR model may lead to a lack of enjoyment or even boredom among students. How to make TPSR-based lessons more engaging will be a research topic that the researcher continues to explore. Most students enrolled in the Learning Assessment course are pre-service teachers and can be considered as future educators. Exposure to the TPSR model during their training phase, along with firsthand experience of its implementation and effectiveness, will not only help them integrate TPSR strategies into their teaching practices but also increase their willingness to adopt this model in the future, thereby creating better learning outcomes for their students.

References

Axinn, W. G., & Pearce, L. D. (2006). *Mixed method data collection strategies*. New York: Cambridge University Press.

Balderson, D., & Sharpe, T. (2005). The effects of personal accountability and personal responsibility instruction on select off-task and positive social behaviors. *Journal of Teaching in Physical Education*, *24*(1), 66-87. https://doi.org/10.1123/jtpe.24.1.66

Baptista, C., Dias, T., Corte-Real, N., Dias, C., Regueiras, L., Pereira, A., & Fonseca, A. (2019). Constructing agents of change through the model of personal and social responsibility (TPSR): A study of physical education in East Timor. *International Journal of Sports Science*, *9*(1), 8-16. https://doi.org/10.5923/j.sports.20190901.02

Barker, B., & Forneris, T. (2012). Reflections on the implementation of TPSR programming with at-risk-youth in the city of Ottawa, Canada. *Agora para*, *14*(1), 78-93.

Beaudoin, S. (2012). Using responsibility-based strategies to empower in-service Physical Education and health teachers to learn and implement TPSR. *AGORA for Physical Education and Sport,14*(2),161-177.

Camerino, O., Valero-Valenzuela, A., Prat, Q., Manzano Sánchez, D., & Castañer, M. (2019). Optimizing education: A mixed methods approach oriented to teaching personal and social responsibility (TPSR). *Frontiers in psychology, 1439*. https://doi.org/10.3389/fpsyg.2019.01439

Cecchini, J. A., Montero, J., & Peña, J. V. (2003). Repercusiones del programa de intervención para desarrollar la responsabilidad personal y social de Hellison sobre los comportamientos de fair-play y el auto-control. *Psicothema*, *15*(4), 631-637.

Cecchini, J. A., Montero, J., Alonso, A., Izquierdo, M., & Contreras, O. (2007). Effects of personal and social responsibility on fair play in sports and self-control in school-aged youths. *European Journal of sport science*, *7*(4), 203-211. https://doi.org/10.1080/17461390701718497

Charmaz, K. (2001). Qualitative interviewing and grounded theory analysis. In J. Gubrium & J. Holstein (Eds.), *Handbook of interview research: Context and method (pp. 675–694)*. Thousand Oaks, CA: Sage.

DeBusk, M., & Hellison, D. (1989). Implementing a physical education self-responsibility model for delinquency-prone youth. *Journal of teaching in physical education*, *8*(2), 104-112. https://doi.org/10.1123/jtpe.8.2.104

Gordon, B. A. (2010). An examination of the responsibility model in a New Zealand secondary school physical education program. *Journal of Teaching in Physical Education, 29*, 21-37. https://doi.org/10.1123/jtpe.29.1.21

Gordon, B., & Beaudoin, S. (2020). Expanding the boundaries of TPSR and empowering others to make their own contributions. *Journal of Teaching in Physical Education*, *39*(3), 337-346. https://doi.org/10.1123/jtpe.2019-0228

Gordon, B., Thevenard, L., & Hodis, F. (2012). A national survey of New Zealand secondary schools Physical Education programs implementation of the teaching personal and social responsibility

(TPSR) model. *Agora para la Educación Física y el Deporte, 14*(2), 197-212.

Hammond-Diedrich, K. C. & Walsh, D. (2006). Empowering youth through a responsibility-based cross-age teacher program: An investigation into impact and possibilities. *Physical Educator, 63*(3), 134-142.

Hellison, D. (2003). Teaching Personal and Social Responsibility. In S. Silverman & C. Ennis (Eds.), *Student learning in physical education* (pp. 269–286). Champaign, IL: Human Kinetics.

Hellison, D. (2011). *Teaching responsibility through physical activity.* (3rd ed.). Champaign, IL: Human Kinetics.

Hemphill, M. A., Templin, T. J., & Wright, P. M. (2015). Implementation and outcomes of a responsibility-based continuing professional development protocol in physical education. *Sport, Education and Society, 20*(3), 398-419. https://doi.org/10.1080/13573322.2012.761966

Huo, Y. (2021). A Study on the Responsibility Benefit and Interpersonal Relationship of Personal and Social Responsibility Teaching (TPSR) Course for College Students: A Case Study of Public Physical Education Students in Nanchang University, Jiangxi Province. *Turkish Journal of Computer and Mathematics Education, 12*(11), 4261-4269.

Hsu, W., Pan, Y., Chou, H., Lee, W., & Lu, J. H. (2014). Measuring students' responsibility in physical education: Instrument development and validation. *International Journal of Sport Psychology, 45*(5), 487–503. https://doi.org/10.7352/JISP2014.45.487

Jung, J., & Wright, P. M. (2012). Application of Hellison's responsibility model in South Korea: a multiple case study of" at-risk" middle school students in physical education. *Agora para la Educación Física y el Deporte*, *2*, 140-160.

Lee, O. (2012) Teacher candidates' implementation of the Personal and Social Responsibility Model in field experiences. *The Physical Educator 69*(2): 150–170.

Llopis-Goig, R., Escarti, A., Pascual, C., Gutierrez, M., & Marin, D. (2011). Strengths, difficulties and improvable aspects in the application of a personal and social responsibility programme in physical education: An evaluation based on the implementers' perceptions. *Cultura y Educación*, *23*(3), 445-461.

Manzano-Sánchez, D., Belando-Pedreño, N., & Valero-Valenzuela, A. (2022). Preservice teachers from physical education: Differences between Ireland and Spain in teaching personal and social responsibility. *Sustainability, 14*(14), 8380. https://doi.org/10.3390/su14148380

Manzano-Sánchez, D., González-Víllora, S., & Valero-Valenzuela, A. (2021). Application of the Teaching Personal and Social Responsibility model in the secondary education curriculum: Implications in psychological and contextual variables in students. *International Journal of Environmental Research and Public Health, 18*(6), 3047. https://doi.org/10.3390/ijerph18063047

Martinek, T., & Hellison, D. (2016). Teaching personal and social responsibility: Past, present and future. J*ournal of Physical Education, Recreation & Dance, 87*(5), 9-13. https://doi.org/10.1080/07303084.2016.1157382

Martinek, T., & Schilling, T. (2003). Developing compassionate leadership in underserved youth. J*ournal of Physical Education, Recreation, and Dance, 74*, 33-39.

https://doi.org/10.1080/07303084.2003.10608483

Martínez, B. J. S. A., Gómez-Mármol, A., Valenzuela, A. V., & De la Cruz Sánchez, E. (2013). Aplicación de un programa para la mejora de la responsabilidad personal y social en las clases de educación física. *Motricidad. European Journal of Human Movement*, *30*, 121-129.

Martínez, B. S. A., Mármol, A. G., Valenzuela, A. V., De la Cruz Sánchez, E., & Luís, R. E. (2012). Influencia del modelo de responsabilidad personal y social en la calidad de vida de los escolares. *Cuadernos de Psicología del Deporte*, *12*(2), 13-18.

Merino-Barrero, J. A., Valero-Valenzuela, A., Pedreño, N. B., & Fernandez-Río, J. (2019). Impact of a sustained TPSR program on students' responsibility, motivation, sportsmanship, and intention to be physically active. *Journal of Teaching in Physical Education*, *39*(2), 247-255. https://doi.org/10.1123/jtpe.2019-0022

Pan, Y. H., Huang, C. H., Lee, I. S., & Hsu, W. T. (2019). Comparison of learning effects of merging TPSR respectively with sport education and traditional teaching model in high school physical education classes. *Sustainability*, *11*(7), 2057. https://doi.org/10.3390/su11072057

Pozo, P., Grao-Cruces, A., & Pérez-Ordás, R. (2018). Teaching personal and social responsibility model-based programmes in physical education: A systematic review. *European Physical Education Review*, *24*(1), 56-75. https://doi.org/10.1177/1356336X16664749

Richards, K.A.R.,&Gordon, B. (2017). Socialisation and learning to teach using the teaching personal and social responsibility approach. *Asia-Pacific Journal of Health Sport and Physical Education, 8*, 19-38. doi:10.1080/18377122.2016.1272424

Richards, K. A. R., Jacobs, J. M., Ivy, V. N., & Lawson, M. A. (2020). Preservice teachers perspectives and experiences teaching personal and social responsibility. *Physical education and sport pedagogy, 25*(2), 188-200. https://doi.org/10.1080/17408989.2019.1702939

Wright, P. & Burton, S. (2008). Implementation and outcomes of a responsibility- based physical activity program integrated into an intact high school physical education class. *Journal of Teaching in Physical Education, 27*, 138-154. https://doi.org/10.1123/jtpe.27.2.138

Toivonen, H. M., Wright, P. M., Hassandra, M., Hagger, M. S., Hankonen, N., Hirvensalo, M., ... & Lintunen, T. (2021). Training programme for novice physical activity instructors using Teaching Personal and Social Responsibility (TPSR) model: A programme development and protocol. *International Journal of Sport and Exercise Psychology, 19*(2), 159-178. https://doi.org/10.1080/1612197X.2019.1661268

Walsh, D. (2007). Supporting youth development outcomes: An evaluation of a responsibility model-based program. *The Physical Educator, 64*(1), 48-56.

Walsh, D. (2008). Helping youth in underserved communities envision possible futures: An extension of the teaching personal and social responsibility model. *Research Quarterly for Exercise and Sport, 79*(2), 209-221.

Walsh, D., Ozaeta, J., & Wright, P. (2010). Transference of responsibility model goals to the school exploring the impact of coaching club program. *Physical Education & Sport Pedagogy, 15*(1), 15-28. https://doi.org/10.1080/17408980802401252

Walsh, D., Veri, M. J., & Scobie, D. (2012). Impact of the Kinesiology Career Club: A TPSR-base

possible futures program for youth in underserved communities. *Ágora para la Educación Fisica y el Deporte*, *14*(2), 213-229.

Ward, S., Parker, M., Henschel-Pellett, H., & Perez, M. (2012). Forecasting the storm: Students perspectives throughout a Teaching Personal and Social Responsibility (TPSR)-based positive youth development program. *Ágora para la Educación Física y el Deporte, 14*(2), 230-247.

Wright, E. M., Whitley, M. A., & Sabolboro, G. (2012). Conducting a TPSR program for an underserved girls' summer camp. *ÁGORA para la Educación Física y el Deporte, 14*(1), 5-24.

Wright, P. M., & Burton, S. (2008). Implementation and outcomes of a responsibility-based physical activity program integrated into an intact high school physical education class. *Journal of Teaching in Physical Education*, *27*(2), 138-154. https://doi.org/10.1123/jtpe.27.2.138

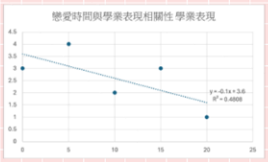
Wright, P. M., Li, W., Ding, S., & Pickering, M. (2010). Integrating a personal and social responsibility program into a wellness course for urban high school students: Assessing implementation and educational outcomes. *Sport, Education and Society*, *15*(3), 277-298. https://doi.org/10.1080/13573322.2010.493309

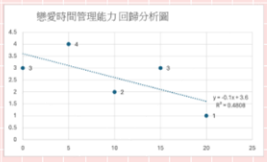
Appendix

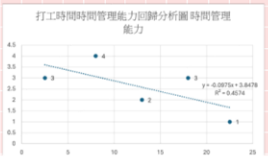
評量方法與工具

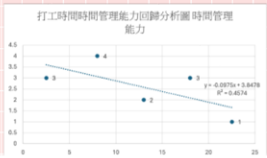
- 自評量表 網路問卷調查
- 使用隆巴赫Cronbach’s [無標題]ha系數 0.879(高度相關)
- 表面效度進行問卷評測

評量結果與其相關性









學習評量期末報告

東華大學體育系任課老師之教學熱忱度評量

第七組: 411189007林宸潞 411180917 莊多佳
411189018黃研皓 411189019 高健銘

評量表單之信度與效度

1. 重測信度：受施測時間間隔影響，當測量時間間距愈短，通常信度愈高。
2. 複本信度：分析兩份相似的測驗之間的信度。
3. 內部一致性信度：折半信度(奇偶數數題折半、前後折半)。庫李信度：(測量到相同的特質)。Cronbach's α：(α 的標準為0.7以上)

- 內容效度-專家效度：請與量表之領域相關專家學者，評估量表題項的適切性、題項是否重疊性太高。
- 效標關聯效度-同時效度：教師自評熱忱度表單↔學生訪談評量