

NEEDS ANALYSIS OF MENTAL SKILLS (MSKILL) MODULE DEVELOPMENT IN PHYSICAL AND HEALTH EDUCATION SUBJECT FOR GIFTED AND TALENTED STUDENTS IN MALAYSIA

AZRINA MD AZHARI¹, NURWINA ANUAR^{2*} AND MOHAMAD NIZAM NAZARUDIN³

^{1,2,3} FACULTY OF EDUCATION, NATIONAL UNIVERSITY OF MALAYSIA UKM, BANGI, MALAYSIA

¹PUSAT PERMATA@PINTAR NEGARA, NATIONAL UNIVERSITY OF MALAYSIA UKM, BANGI, MALAYSIA

EMAIL: ¹p145901@siswa.ukm.edu.my, ²nurwina@ukm.edu.my, ³mohdnizam@ukm.edu.my

Abstract:

This study is a needs analysis aimed at developing a Mental Skills Module (MSKILL) for the Physical and Health Education subject for gifted and talented students in Malaysia. The specific objectives were to identify student's perceptions of the need for the module, determine the relevant constructs to be included in its design and assess the areas of mental skill weaknesses that should be addressed in the module content. A total of 214 students from a national gifted education center participated in the survey using two structured questionnaires. Data were analyzed using descriptive and multiple linear regression analyses. Findings revealed that students possessed moderate levels of overall mental skills with significant weaknesses in anxiety and worry management, self-confidence and motivation. Students showed a high level of readiness and interest in a structured mental skills module. They also preferred content that included visual aids, clear learning objectives and accessible language. Multiple linear regression analysis indicated that among the seven mental skill domains assessed, only mental imagery significantly predicted student's perceived need for the module. These findings support the inclusion of key constructs in the module's development and highlight the importance of incorporating preferred strategies and support mechanisms aligned with student's needs.

Keywords: Needs analysis, module development, gifted and talented students, physical and health education.

1) INTRODUCTION:

Gifted and talented students are commonly recognized for their exceptional intellectual capabilities, creative thinking and high academic performance. However, despite these cognitive strengths, numerous studies have reported that gifted and talented students often face psychosocial and emotional difficulties such as anxiety, perfectionism, low self-confidence, emotional imbalance and difficulties managing stress [1][2]. These challenges, if not addressed can hinder their overall development, affecting not only academic outcomes but also social relationships and mental well-being.

In Malaysia, Physical and Health Education is developed based on the National Education Philosophy and is recognized as a core subject encompassing psychomotor, cognitive, affective and physical domains [3]. The subject emphasizes holistic self-development across various aspects such as physical, mental, emotional, social and safety awareness while also nurturing self-responsibility, social interaction and collaboration among students [4]. Physical and health Education is also regarded as a subject with the potential to contribute significantly to student's mental and physical balance, particularly among students with special needs [5].

However, the implementation of Physical and Health Education in schools remains predominantly focused on physical activities with limited explicit integration of psychological well-being components. Critical elements such as anxiety and worry management, emotional and stimulus control, self-confidence and motivation are not systematically taught in everyday Physical and Health Education lessons. As a result, the full potential of Physical and Health Education as a platform for psychosocial intervention remains underutilized. Furthermore, the inclusion of mental skills training is often dependent on individual teacher initiatives rather than guided by structured frameworks or official modules [6].

Sport psychology as a subdiscipline of psychology offers structured and empirically supported techniques such as goal setting, mental imagery, self-talk and relaxation that have proven effective in improving emotional regulation, motivation and mental resilience in both sports and academic domains [7] [8]. These techniques can be adapted and integrated into the school setting, particularly through subjects like Physical and Health Education subject to benefit gifted and talented students who require structured mental skills to thrive in high-pressure environments.

Internationally, several interventions have shown the benefits of mental skills training in school contexts but local studies in Malaysia remain limited especially those that focus on the gifted and talented population. Most existing interventions are either extracurricular or generalized for the mainstream student population [9][10]. There is a pressing need to develop structured and curriculum-integrated mental skills modules that are contextually relevant and tailored specifically to the characteristics and learning styles of gifted and talented students in Malaysia.

In response to this need, this study was conducted to perform a systematic needs analysis to guide the development of a Mental Skills Module (MSKILL) in the Physical and Health education subject for gifted and talented students. The analysis aims to assess the student's current level of mental skills including identifying the overall strengths and areas in need of improvement, identify their readiness to engage with a structured module and determine their preferences for the content and design of the module. The findings from this needs analysis will serve as the foundation for the design and development of Mental Skills Module (MSKILL) using the ADDIE model with the ultimate goals of supporting the psychological well-being and holistic development of Malaysia's gifted and talented students.

2) METHODS AND METHODOLOGY:

Participants

The study involved a total of 214 gifted and talented age 11 to 17 years old students enrolled in a national gifted center in Malaysia called Kolej PERMATA@Pintar Negara, UKM. Kolej PERMATA@Pintar Negara, UKM is the first gifted education center established in Malaysia, beginning its operation in 2009. It is a premier residential institution that gathers gifted and talented students from across the country through a rigorous identification process involving UKM1, UKM2 and UKM3 assessments as well as participation in school holiday enrichment camps. Participants for this study were selected using purposive sampling to identify the institution followed by systematic random sampling to recruit students from the identified population.

Instruments

Two instruments were utilized in this study. The first was the Mental Skills Questionnaire adapted from Bull Mental Skills Questionnaire (1996) which measured student's mental skills across seven domains like imagery ability, mental readiness, self-confidence, concentration, anxiety and worry management, arousal control and motivation. The questionnaire consisted of 28 items rated on a 6-point Likert scale.

The second instrument was the Needs Analysis Questionnaire developed by the research team adapted from the previous research to assess student's perceptions of the need for a mental skills module in the Physical and Health Education subject. This instrument focused on three core constructs like student's readiness and awareness of mental skills, content and instructional design preferences including preferred learning styles and support services received and desired to enhance psychological functioning. The questionnaire consisting of items adapted from existing validated modules used a 5-point Likert scale to capture levels of agreement.

Both instruments were reviewed and validated by a panel expert in sport psychology and gifted education. Feedback was incorporated to ensure clarity, relevance and content validity before implementation. This study adopted a quantitative survey design. Participants completed both instruments in a supervised setting. Permission to conduct the study was obtained from the college director prior to data collection.

Data Analysis

Data were analyzed using descriptive and inferential statistics via SPSS Version 29.0. Overall mental skills levels of the students were first assessed to provide a general understanding of their mental skills level, categorized into low, medium or high levels. Mean scores and standard deviations were calculated for each mental skills domain to assess areas of strength and weakness. Frequency and percentage distributions were used to summarize student's perceptions regarding the module needs and support preferences. In addition, a multiple linear regression analysis was conducted to examine whether the seven mental skill domains significantly predicted student's perceived need for the proposed mental skill module. This inferential analysis enabled the identification of key predictors that can inform the content prioritization in future module development.

3) RESULT:

Descriptive analysis of mental skills level

Descriptive analysis was conducted to determine the levels of mental skills among gifted and talented students (N = 214). Based on the interpretation of the 5-point Likert scale (1.00 - 2.33 = low; 2.34 - 3.66 = moderate; 3.67 - 5.00 = high), the results indicated that Mental Preparation recorded the highest mean score and was categorized as high (M = 4.58, SD = 0.93). This was followed by Imagery Ability (M = 3.95, SD = 0.51) and Arousal Regulation (M = 3.89, SD = 0.57), both of which also fell within the high range. Meanwhile, mental skills domain Focus (M = 3.53, SD = 1.07) and Motivation (M = 3.39, SD = 0.32) were found to be at a moderate level. Self-Confidence was also rated at a moderate level (M = 3.10, SD = 0.71). The lowest mean score was recorded for Anxiety and Worry Management (M = 2.94, SD = 1.19) suggesting this skill area was generally less developed among the participants. Table 1 presents the detailed mean and standard deviation scores for each mental skill domain among gifted and talented students.

Table 1. Analysis of Each Mental Skills Domain Among Gifted and Talented Students

	Imagery ability	Mental preparation	Self-confidence	Focus	Anxiety and worry management	Arousal regulation	Motivation
N	214	214	214	214	214	214	214
Mean	3.95	4.58	3.10	3.53	2.94	3.89	3.39
Standard deviation	0.51	0.93	0.71	1.07	1.19	0.57	0.32

In addition to the analysis of mean scores for each domain, the overall level of mental skills among the gifted and talented students was also categorized into three levels which is low, moderate and high. Table 2 presents the distribution of mental skill levels among all respondents in percentage form. The findings indicate that the majorities of students demonstrated a moderate level of mental skills with 175 students (81.8%) falling into this category. Meanwhile, 38 students (17.8%) were classified as having a high level and only 1 student (0.5%) was found to have a low level of mental skills.

Table 2. Distribution of Mental Skills Levels among Gifted and Talented Students

Mental skills level	Frequency (n)	Percentage (%)
Low	1	0.5
Medium	175	81.8
High	38	17.8
Total	214	100

Descriptive analysis of student's readiness for module development

An analysis was conducted to assess the level of student's readiness for the development of a mental skills module based on their agreement with seven related statements. The results show that the statement "I can enhance my understanding of mental skills if a mental skills module is developed" recorded the highest mean score ($M = 3.80$, Median = 4.00, $SD = 0.910$). This was followed by "I need a mental skills module to improve my mental skills" ($M = 3.71$, Median = 4.00, $SD = 1.048$) and "I can refer to it if a mental skills module is available" ($M = 3.70$, Median = 4.00, $SD = 0.982$). Other statements also indicated a generally positive level of readiness, such as "I am interested in the mental skills module" ($M = 3.61$, Median = 4.00, $SD = 0.961$) and "I need a mental skills module that is portable" ($M = 3.56$, Median = 4.00, $SD = 1.136$). Meanwhile, the statements "I need a mental skills module in the Physical and Health Education subject" ($M = 3.19$, Median = 3.00, $SD = 1.076$) and "I was less exposed to mental skills previously" ($M = 3.29$, Median = 3.00, $SD = 1.067$) obtained the lowest mean scores among the seven items. The descriptive statistics for all statements are presented in Table 3.

Table 3. Analysis of Students' Readiness for the Development of a Mental Skills Module by Construct.

Construct	Statement	Mean	Median	Standard deviation
Students' readiness for the development of a mental skills module	I am interested in the mental skills module	3.61	4.00	0.961
	I need a mental skills module in the Physical and Health Education (PHE) subject	3.19	3.00	1.076
	I need a mental skills module to improve my mental skills	3.71	4.00	1.048
	I need a mental skills module that is portable	3.56	4.00	1.136
	I can refer to it if a mental skills module is available	3.70	4.00	0.982
	I can enhance my understanding of mental skills if a module is developed	3.80	4.00	0.910
	I was less exposed to mental skills previously	3.29	3.00	1.067

Descriptive analysis of content and format needs for module development

An analysis was conducted to examine the content and format needs for the development of a mental skills module among gifted and talented students. The statement "The module should include attractive graphics" recorded the highest mean score ($M = 4.17$, Median = 4.00, $SD = 0.914$) followed by "The module should use easily understandable language" ($M = 4.16$, Median = 4.00, $SD = 0.907$) and "The module should provide user guidelines" ($M = 4.12$, Median = 4.00, $SD = 0.909$). These were followed by other statements such as "The module should use easy-to-read fonts" ($M = 4.11$, Median = 4.00, $SD = 0.928$), "The module should include activities appropriate to each topic" ($M = 4.07$, Median = 4.00, $SD = 0.891$) and "The module should include references in each activity" ($M = 4.01$, Median = 4.00, $SD = 0.906$). Meanwhile, moderately high scores were observed for statements such as "The module should clearly explain the activities" ($M = 3.96$, Median = 4.00, $SD = 0.949$), "The module should have clear objectives" ($M = 3.93$, Median = 4.00, $SD = 0.924$), "The module should match my cognitive level" ($M = 3.93$, Median = 4.00, $SD = 0.875$), and "The module should include group activities" ($M = 3.52$, Median = 4.00, $SD = 0.992$). Lower mean scores were recorded for "The module should involve physical activities in every session" ($M = 3.40$, Median = 3.00, $SD = 1.010$) and "The module should include only individual activities" ($M = 3.14$, Median = 3.00, $SD = 1.033$). The descriptive statistics for all items are presented in Table 4.

Table 4. Content and Format Needs Analysis for the Development of a Mental Skills Module by Construct

Construct	Statement	Mean	Median	Standard deviation
Content and format needs for the mental skills module	The mental skills module should have clear objectives	3.93	4.00	0.924
	The mental skills module should clearly explain the activities	3.96	4.00	0.949
	The mental skills module should use easily understandable language	4.16	4.00	0.907
	The module should include activities appropriate to each topic	4.07	4.00	0.891
	The module should match my cognitive level	3.93	4.00	0.875
	The module should include only individual activities	3.14	3.00	1.033
	The module should include group activities	3.52	4.00	0.992
	The module should involve physical activities in every session	3.40	3.00	1.010
	The module should use easy-to-read fonts	4.11	4.00	0.928
	The module should include attractive graphics	4.17	4.00	0.914
	The module should provide user guidelines	4.12	4.00	0.909
	The module should include references in each activity	4.01	4.00	0.906

Descriptive analysis of student's self-reported in Malay and English language

An analysis was conducted to assess respondent's self-reported proficiency in the Malay language. The majorities of students ($n = 153$, 71.5%) indicated that they were fluent in Malay. Another 49 students (22.9%) reported having a moderate level of proficiency, while only 12 students (5.6%) considered themselves not fluent. These findings suggest that the Malay language is suitable as the primary medium of instruction for the mental skills module. The full distribution of Malay language proficiency is presented in Table 5.

Table 5. Distribution of Respondent's Language Proficiency in Malay

Level of Malay Language Proficiency	Frequency (n)	Percentage (%)
Fluent	153	71.5
Moderate	49	22.9
Not Fluent	12	5.6

Total	214	100
-------	-----	-----

Students were also asked to rate their proficiency in the English language. A total of 131 students (61.2%) reported being fluent in English, followed by 76 students (35.5%) who reported moderate proficiency. Only 7 students (3.3%) stated that they were not fluent. These results suggest that English can be used as a supplementary language in the module, but Malay should remain the primary medium due to higher overall fluency. The details of the distribution are shown in Table 6.

Table 6. Distribution of Respondent's Language Proficiency in English

Level of English Language Proficiency	Frequency (n)	Percentage (%)
Fluent	131	61.2
Moderate	76	35.5
Not Fluent	7	3.3
Total	214	100

Descriptive analysis of student's preferred learning styles

To inform the instructional design of the module, students were asked to identify their preferred learning styles. The most common learning style reported was Visual ($n = 87$, 40.7%), followed by Kinesthetic ($n = 41$, 19.2%) and Reflector ($n = 23$, 10.7%). Auditory and Activist learning styles were each selected by 19 students (8.9%). Notably, none of the respondents selected Theorist as their preferred learning style. These distributions are summarized in Table 7.

Table 7. Distribution of Respondent's Learning Styles

Learning Style	Frequency (n)	Percentage (%)
Visual (Images, charts, videos, mind maps)	87	40.7
Kinesthetic (Movement, building, creating)	41	19.2
Reflector (Thinking and analyzing)	23	10.7
Auditory (Voice, lectures, forums, debates, songs)	19	8.9
Activist (Volunteering, active participation)	19	8.9
Theorist (Interested in theory, laws, concepts)	0	0

Linear regression analysis to predict student's perceived need for the module development

A multiple linear regression analysis was conducted to determine whether the seven domains of mental skills could significantly predict student's perceived need for the development of a mental skills (MSKILL) module. The overall regression model was marginally significant, $F(7, 206) = 2.019$, $p = .054$, and accounted for 6.4% of the variance in the dependent variable ($R^2 = .064$). Among the seven mental skill predictors, Mental Imagery was the only domain that showed a statistically significant positive relationship with the need for module development ($\beta = 0.170$, $t = 2.483$, $p = .014$). This indicates that students with stronger imagery ability were more likely to express the need for a mental skills module. The other domains like Mental Preparation ($\beta = -0.108$, $p = .136$), Confidence ($\beta = -0.147$, $p = .084$), Focus ($\beta = 0.007$, $p = .932$), Anxiety and Worry Management ($\beta = 0.007$, $p = .932$), Arousal Regulation ($\beta = -0.049$, $p = .570$) and Motivation ($\beta = -0.044$, $p = .531$) did not significantly predict the outcome. Full regression coefficients are presented in Table 8.

Table 8. Linear Regression Between Mental Skills and the Need for Mental Skill (MSKILL) Module Development

Independent Variables	B	SE	β	t	Sig.
Constant	2.131	0.642	-	3.320	.001
Mental Imagery	0.218	0.088	0.170	2.483	.014 *
Mental Preparation	-0.075	0.050	-0.108	-1.498	.136

Self-Confidence	-0.134	0.077	-0.147	-1.736	.084
Focus	0.004	0.051	0.007	0.086	0.932
Anxiety and Worry Management	0.004	0.051	0.007	0.086	.932
Arousal Regulation	-0.027	0.047	-0.049	-0.569	.570
Motivation	-0.050	0.079	-0.044	-0.628	.531

4) DISCUSSION:

The findings of this study provide important insights into the mental skill levels, readiness, content preferences and learning profiles of gifted and talented students, serving as a foundational basis for the development of a targeted mental skills module.

For the mental skills level, the descriptive analysis revealed that among the various domains in mental skills, gifted and students demonstrated the highest proficiency in mental preparation, followed by imagery ability and arousal regulation. This indicates that gifted and talented students are generally well prepared mentally and were capable in utilizing mental imagery effectively which is the skills can enhance performance in both academic and physical contexts. However, lower mean scores were observed in anxiety and worry management, self-confidence and motivation highlighting these as key areas requiring targeted intervention in the module development. These findings are consistent with previous literature which suggests that while gifted and talented students often exhibit advanced cognitive capabilities, they may still encounter psychological challenges that interfere with their performance and well-being. Gifted and talented students frequently experience higher levels of anxiety, stress and depression compared to their peers. These issues are closely related to their gifted characteristics and can negatively impact their social and emotional well-being [11][1] and stress is particularly prevalent among gifted and talented students, followed by anxiety and depression [11].

Other than that, the majorities of gifted and talented students (81.8%) were found to possess a moderate level of overall mental skills. Although this is encouraging, it also suggests substantial room for improvement, especially in the domains where students scored lower. One possible reason for the moderate level observed could be the presence of compulsory subjects such as Self-Development and Personality Development offered at the Kolej PERMATA@Pintar Negara, UKM as well as ongoing mental well-being programs organized by the college's Guidance and Counseling Unit throughout the year. These initiatives may have contributed to the development of student's mental skills to some extent. However, there is still a need to further enhance these skills through the application of sport psychology principles in a structured and suitable module, particularly within the Physical and Health Education subject.

For the readiness for mental skill module development, the findings indicate that gifted and talented students exhibit a moderately high level of readiness for the development and implementation of a mental skills module. The highest levels of agreement were observed in items related to the need to enhance their understanding of mental skills, improve those skills and have accessible reference materials to support their development. These responses reflect a clear recognition among students of the importance of mental skills training and their receptiveness to structured interventions. Notably, the moderate level of interest in applying such a module within the Physical and Health Education subject suggests a promising opportunity for integration into the existing curricular framework. This integration could strengthen the relevance and practical application of mental skills within students' daily academic and co-curricular experiences. Consistent with this, previous studies by [9] as well as [12] emphasized that addressing the academic and psychological needs of gifted and talented learners can be effectively supported through differentiated instructional strategies, targeted enrichment programs and the development of modules designed to enhance stress management and psychological resilience.

Regard to content and design preferences, gifted and talented students placed significant importance on the use of visually elements, clear and simple language and accessible, user-friendly guidance [13]. There was also strong endorsement for the inclusion of topic-relevant activities and clearly stated learning objectives, reflecting a preference for structured and well-organized content. Notably, students did not express a strong preference for modules based solely on individual tasks or physical activities, suggesting the need for diverse instructional strategies that incorporate cognitive, collaborative and reflective elements. As [14] emphasized, effective curriculum and instruction for gifted and talented learners should be intellectually rich, conceptually deep and personally meaningful with appropriate differentiation in pace and level of challenge. This underscores the inadequacy of uniform approaches such as exclusively individual based activities. In the context of mental skills development, this is particularly relevant as effective training typically involves a blend of experiential learning, self-reflection and interpersonal engagement [15].

The majorities of the students reported fluency in Malay (71.5%), with a smaller proportion indicating fluency in English (61.2%). These findings support the use of Malay as the primary language of instruction in the module, with English incorporated as a supplementary medium where appropriate. Language accessibility is particularly critical for modules involving psychological constructs, as clear and nuanced comprehension can significantly

influence learners' engagement and the effective internalization of content. This is consistent with findings from therapeutic settings such as cognitive-behavioral therapy where language functions as the central mode of delivery. Ensuring linguistic accessibility for individuals with language-related challenges has been shown to enhance both engagement and therapeutic outcomes [16].

Regard to learning preferences, visual (40.7%) and kinesthetic (19.2%) styles were dominant, followed by reflective (10.7%) approaches. These results indicate that the module should prioritize visual and hands-on activities, while also incorporating elements of critical thinking, collaborative learning, and active engagement to accommodate the diverse learning needs of GTS. Integrating multiple learning styles can enhance retention, motivation and the transfer of mental skills to real-life situations [17] [18] [19].

The findings from the multiple linear regression analysis offer meaningful insights into the development of the Mental Skills Module (MSKILL) for gifted and talented students. The regression model was marginally significant ($p = .054$), explaining 6.4% of the variance in student's perceived need for the module. Although the explained variance was modest, it still highlights the potential contribution of mental skills to students' readiness for psychological skills training. Among the seven domains, mental imagery was the only statistically significant predictor ($\beta = 0.170$, $p = .014$). This aligns with existing literature indicating that mental imagery plays a crucial role to improve cognitive performance in tasks requiring high levels of precision and control [20] [21]. Students who are already skilled in mental imagery may better understand the benefits of structured psychological interventions and therefore express a greater need for further development.

Other domains such as mental preparation, confidence, focus, anxiety and worry management, arousal regulation and motivation did not significantly predict the need for module development. However, the negative beta values observed for confidence and motivation, together with their low mean scores from descriptive analysis suggest an underlying psychological need among students who are less proficient in these areas. This is consistent with previous studies that show how gifted and talented students may experience difficulties such as perfectionism, underachievement and emotional imbalance due from their cognitive strengths [22] [23] [24]. Effectively addressing these challenges calls for a holistic approach that incorporates adaptable teaching strategies, strong emotional support systems, and balanced expectations from both educators and parents [22].

The lack of statistical significance for most domains could also indicate that students may not yet be fully aware of their psychological limitations particularly in emotional regulation and motivation unless those areas are explicitly addressed in educational settings [25][26][27] [28] [29]. As such, these domains remain important targets for training and support even if they do not emerge as significant predictors in this regression model. Moreover, the relatively low R^2 value suggests that other factors not captured in the current model such as environmental stressors, academic workload and social-emotional support systems significantly influence gifted and talented students' perceived need for psychological skills development [30] [31] [32]. Addressing these factors through structured support and targeted interventions is essential to enhance their well-being and academic success [33] [34] [35]. Therefore, Mental Skill (MSKILL) module development should adopt a holistic and adaptable framework, combining core mental skills content with flexible strategies that accommodate diverse gifted learner profiles.

5) CONCLUSION:

In conclusion, the findings of this study provide compelling evidence for the need to develop a structured Mental Skills Module (MSKILL) for gifted and talented students, particularly within the context of Physical and Health Education. While students demonstrated moderate levels of overall mental skills, significant gaps were identified in areas such as anxiety and worry management, self-confidence and motivation which warrant focused intervention. The positive association between mental imagery and perceived need for module development further supports the inclusion of this domain as a foundational component of the module. Additionally, students expressed a high level of readiness and clear preferences for visually rich, well-structured content delivered in Malay supported by interactive and experiential learning strategies aligned with their dominant learning styles. These findings suggest that the Mental Skill (MSKILL) module should be designed as a integrates sport psychology principles to enhance psychological resilience, performance and overall well-being among gifted learners.

5) Funding Statement: The authors did not receive financing for the development of this research.

6) Data Availability: The data of this study are not publicly available due to ethical restrictions and a confidentiality agreement approved by the institution's director. Data sharing is not applicable to this article.

7) References:

1. Bakar, A. Y., & Ishak, N. M. (2014). Psychosocial issues among gifted students in Malaysia. *Journal of Gifted Education Research*, 5(2), 15–26.
2. Jung, J. Y., Park, S. H., & Lee, Y. H. (2020). Emotional needs of high-potential youth: Implications for school-based support. *Asia Pacific Education Review*, 21, 273–289. <https://doi.org/10.1007/s12564-020-09639-7>
3. Khoo, S., & Khan, T. (2025). Towards quality physical education in Malaysia.

4. Zakaria, M. B., & Mazalan, N. S. (2024). Physical education and health education, is it a neglected subject? *International Journal of Academic Research in Progressive Education and Development*, 13(1), 2593–2601.
5. Zulkifli, Z., & Anal, A. (2023). The importance of Physical Education and Health subjects for students with special educational needs in Malaysia. *International Journal of Social Science Humanity & Management Research*, 2(9), Article 12. <https://doi.org/10.58806/ijsshr.2023.v2i9n12>.
6. Gatt, A. M., Makopoulou, K., & Cumming, J. (2024). Promoting mental health and well-being in physical education: A qualitative study on teachers and lecturers' perceptions and practices in Malta. *Sport, Education and Society*.
7. Vealey, R. S. (2023). *Mental skills training for sport and life: A guide for athletes, coaches, and parents* (2nd ed.). Human Kinetics.
8. Grunberg, V. A. M., Gottlieb, H. K., & Zinsser, K. M. (2024). Mental skills in athletic and academic resilience: A cross-domain perspective. *Journal of Applied Sport Psychology*, 36(1), 88–105.
<https://doi.org/10.1080/02783199509553709>
9. Reis, S. M., & Renzulli, J. S. (2012). A comprehensive approach to gifted education. *Gifted Child Quarterly*, 56(3), 147–159. <https://doi.org/10.1177/0016986212443158>
10. Gagné, F. (1995). From giftedness to talent: A developmental model and its impact on the language of the field. *Roeper Review*, 18(2), 103–111. <https://doi.org/10.1080/02783199509553709>
11. Suyitno, S., Winarto, Sulistiana, D., & Supriyono. (2024). Gifted students: Analysis among psychological problems, social, and emotional well-being. *Edelweiss Applied Science and Technology*, 8(1).<https://www-scopus-com.eresourcesptsl.ukm.remotexts.co/pages/publications/85205934212>
12. Abramo, J. M., & Natale-Abramo, M. (2020). Reexamining “gifted and talented” in music education. *Music Educators Journal*, 106(3), 38–46. <https://doi.org/10.1177/0027432119895304>
13. Stambaugh, T., & Mofield, E. (2022). *A teacher's guide to curriculum design for gifted and advanced learners: Advanced content models for differentiating curriculum*. Routledge. <https://doi.org/10.4324/9781003238515>
14. Tomlinson, C. A. (2005). Quality curriculum and instruction for highly able students. *Theory Into Practice*, 44(2), 160–166. https://doi.org/10.1207/s15430421tip4402_10
15. Collins, D., & Richards, H. (2021). Mental skills. In *Sport, exercise and performance psychology*.
16. Hill, E., Tonta, K., Boyes, M., & others. (2025). “Why would someone like me with DLD want to sit in a room and talk? How would that make me feel better?!” Developmental language disorder and the language demands of cognitive behaviour therapy. *International Journal of Cognitive Behaviour Therapy*.
<https://doi.org/10.1007/s41811-025-00254-3>
17. Rawson, K. A., Vaughn, K. E., Walsh, M., & Dunlosky, J. (2018). Investigating and explaining the effects of successive relearning on long-term retention. *Journal of Experimental Psychology: Applied*, 24(1), 57–71. <https://doi.org/10.1037/xap0000146>
18. Alneama, R., & Ibrahim, R. (2025). An integration of Benner's theory to explore the learning styles and motivation as predictors of academic achievement among nursing students in Iraq. *Journal of Holistic Nursing Science*, 12(1), 95–104. <https://doi.org/10.31603/nursing.v12i1.13324>
19. Savion-Lemieux, T., & Penhune, V. B. (2010). The effect of practice pattern on the acquisition, consolidation, and transfer of visual-motor sequences. *Experimental Brain Research*, 204(2), 271–281.
<https://doi.org/10.1007/s00221-010-2311-6>
20. Jacobs, C., Schwarzkopf, D. S., & Silvanto, J. (2018). Visual working memory performance in aphantasia. *Cortex*, 105, 61–73. <https://doi.org/10.1016/j.cortex.2017.10.014>
21. Boccaccio, F. M., Pennisi, A., Guerrero, C. S., Platania, G. A., Torre, V., Varrasi, S., Vezzosi, V. F., Coco, F., Castellano, S., & Pirrone, C. (2024). Mental imagery between cognition and emotion: A narrative review. *Psychiatry International*, 5(4), 697–717. <https://doi.org/10.3390/psychiatryint5040049>
22. Noor, B. (2023). Pressure and perfectionism: A phenomenological study on parents' and teachers' perceptions of the challenges faced by gifted and talented students in self-contained classes. *Frontiers in Education*, 8, Article 1225623. <https://doi.org/10.3389/feduc.2023.1225623>
23. Guilbault, K., & McCormick, K. (2021). Supporting elementary gifted learners during the COVID-19 pandemic: A survey of teaching practices. *Gifted Education International*, 38(1).
24. Freeman, J. (2008). The emotional development of gifted and talented children. *Gifted and Talented International*, 21(1), 20–28.
25. Ma, J., Smith, S. W., & Barber, B. R. (2024). Goal setting instruction for middle school students who receive services for emotional and behavioral disorders. *Intervention in School and Clinic*, 60(3), 156–168.
<https://doi.org/10.1177/10534512241280263>
26. Burić, I., Sorić, I., & Penezić, Z. (2016). Emotion regulation in academic domain: Development and validation of the Academic Emotion Regulation Questionnaire (AERQ). *Personality and Individual Differences*, 96, 138–147. <https://doi.org/10.1016/j.paid.2016.02.074>
27. Järvenoja, H., Malmberg, J., Järvelä, S., Näykki, P., & Kontturi, H. (2018). Investigating students' situation-specific emotional state and motivational goals during a learning project within one primary school classroom. *Learning: Research and Practice*, 5(1), 4–23. <https://doi.org/10.1080/23735082.2018.1554821>
28. Reichart, K. D., Bohanon, H. S., & Coffee, G. (2025). The effects of a tier 1 self-regulation intervention on elementary students' engagement and reading comprehension. *Psychology in the Schools*. Advance online publication. <https://doi.org/10.1002/pits.23499>

29. Rojas Cadena, C. M., Ruiz Silva, A. M., & Díaz-Mosquera, E. N. (2024). Psychoeducational proposal on emotional competencies in university students. *Sophia*, (36), 169–197. <https://doi.org/10.17163/soph.n36.2024.05>
30. Blaas, S. (2014). The relationship between social-emotional difficulties and underachievement of gifted students. *Australian Journal of Guidance and Counselling*, 24(2), 243–255. <https://doi.org/10.1017/jgc.2014.1>
31. Eddles-Hirsch, K., Vialle, W., Rogers, K., & McCormick, J. (2010). “Just challenge those high-ability learners and they’ll be all right!” The impact of social context and challenging instruction on the affective development of high-ability students. *Journal of Advanced Academics*, 22(1), 106–128. <https://doi.org/10.1177/1932202X1002200105>
32. Reis, S. M., & Renzulli, J. S. (2004). Current research on the social and emotional development of gifted and talented students: Good news and future possibilities. *Psychology in the Schools*. <https://www-scopus-com.eresourcesptsl.ukm.remotexs.co/pages/publications/0347123071>
33. Lee, S.-Y. (2021). Supportive environments for developing talent. In *The social and emotional development of gifted children: What do we know?* <https://www-scopus-com.eresourcesptsl.ukm.remotexs.co/pages/publications/85037728688>
34. Parker, J., & Warren, H. (2021). Collaborative efforts between school counselors and school psychologists. In *Handbook for counselors serving students with gifts and talents: Development, relationships, school issues, and counseling needs/interventions*. <https://www-scopus-com.eresourcesptsl.ukm.remotexs.co/pages/publications/85129084464>
35. Ogurlu, Ü., Sevgi-Yalın, H., & Yavuz-Birben, F. (2018). The relationship between social–emotional learning ability and perceived social support in gifted students. *Gifted Education International*. <https://www-scopus-com.eresourcesptsl.ukm.remotexs.co/pages/publications/85083429222>