## User Guide for Assessing the Components of the MUSIC ${ }^{\circledR}$ Model of Motivation

by Brett D. Jones



Copyright © 2012-2023 Brett D. Jones. All rights reserved.
MUSIC is a registered trademark of Brett D. Jones.
Citation: Jones, B. D. (2012/2023, August). User guide for assessing the components of the MUSIC® Model of Motivation. http://www.theMUSICmodel.com

Note: This guide is updated regularly to reflect the most current research available.

## Table of Contents

Introduction ..... 3
Information About the MUSIC ${ }^{\circledR}$ Inventory ..... 4
MUSIC ${ }^{\circledR}$ Inventory (College Student version) ..... 9
MUSIC ${ }^{\circledR}$ Inventory (Professor version) ..... 22
MUSIC ${ }^{\oplus}$ Inventory (Middle/High School Student version) ..... 27
MUSIC ${ }^{\oplus}$ Inventory (Elementary School Student version) ..... 35
MUSIC ${ }^{\circledR}$ Inventory (Arabic translation of the College Student version) ..... 40
MUSIC ${ }^{\oplus}$ Inventory (Chinese translation of the College Student version) ..... 42
MUSIC ${ }^{\circledR}$ Inventory (Dutch translation of the College Student version, present tense) ..... 46
MUSIC ${ }^{\circledR}$ Inventory (Farsi/Persian translation of the College Student version) ..... 49
MUSIC ${ }^{\circledR}$ Inventory (Farsi translation of the Middle/High School Student version) ..... 51
MUSIC ${ }^{\circledR}$ Inventory (Finnish translation of the College Student version) ..... 55
MUSIC ${ }^{\circledR}$ Inventory (French translation of the College Student version) ..... 58
MUSIC ${ }^{\circledR}$ Inventory (French translation of the Middle/High School version for a Class Activity) ..... 61
MUSIC ${ }^{\circledR}$ Inventory (German translation of the College Student version) ..... 63
MUSIC ${ }^{\circledR}$ Inventory (Icelandic translation of the Middle/High School version) ..... 66
MUSIC ${ }^{\circledR}$ Inventory (Japanese translation of the College Student version) ..... 70
MUSIC ${ }^{\circledR}$ Inventory (Korean translation of the College Student version) ..... 77
MUSIC ${ }^{\oplus}$ Inventory (Korean translation of the Middle/High School Student version) ..... 79
MUSIC ${ }^{\circledR}$ Inventory (Polish translation of the College Student version) ..... 81
MUSIC ${ }^{\circledR}$ Inventory (Romanian translation of the College Student version, past tense) ..... 84
MUSIC ${ }^{\circledR}$ Inventory (Spanish translation of the College Student version) ..... 87
MUSIC ${ }^{\circledR}$ Inventory (Spanish translation of the Middle/High School Student version) ..... 89
MUSIC ${ }^{\circledR}$ Inventory (Turkish translation of the College Student version, present tense) ..... 91
MUSIC ${ }^{\circledR}$ Inventory (Turkish translation of the Middle/High School version) ..... 94
MUSIC ${ }^{\circledR}$ Inventory (Cognitive Training version for clients) ..... 96
MUSIC ${ }^{\circledR}$ Inventory (Cognitive Training version for clinicians) ..... 105
Open-Ended Questions for Students ..... 108
Interview Questions for Students ..... 110
Interview Questions for Teachers ..... 113
Other Items and Scales ..... 114
References ..... 119

## Introduction

## What is included in this User Guide?

This guide contains the instructions, items, and scoring instructions for many versions of the MUSIC ${ }^{\circledR}$ Model of Motivation Inventory (referred to in this guide as the MUSIC Inventory). In addition, this guide contains some open-ended items and interview questions that have been used to assess perceptions of the MUSIC components. The MUSIC Inventory was developed by Dr. Brett Jones to measure constructs related to the five primary components of the MUSIC ${ }^{\circledR}$ Model of Motivation (Jones, 2009, 2018).

This guide also includes a few other scales and items that are sometimes used in combination with the MUSIC Inventory, including: students' perceived effort, ease of course, overall course rating, and overall instructor rating.

## What is the MUSIC ${ }^{\circledR}$ Model of Motivation?

The MUSIC Model of Motivation (Jones, 2009, 2018) is a model that can be used in any subject area at any grade level (a) to design instruction that motivates students, (b) to diagnose motivational strengths and weakness of instruction, and (c) to research relationships among factors critical to student motivation. The five key principles of the model are as follows. "The instructor needs to ensure that students:

1. feel empowered by having the ability to make decisions about some aspects of their learning,
2. understand why what they are learning is useful for their short- or long-term goals,
3. believe that they can succeed if they put forth the effort required,
4. are interested in the content and instructional activities, and
5. believe that others in the learning environment, such as the instructor and other students, care about their learning and about them as a person" (Jones, 2018, p. 9).

MUSIC is an acronym to help you remember the beginning sounds of these five key principles:
eMpowerment, Usefulness, Success, Interest, and Caring.
This is only a very brief summary of the model, for more information, please:

- Read this free book: Jones, B. D. (2018). Motivating students by design: Practical strategies for professors (2nd ed.). CreateSpace. https://vtechworks.lib.vt.edu/handle/10919/102728
- Free PDF book to download: https://tinyurl.com/MotivatingStudents2pdf
- Print book version to buy for \$19: http://tinyurl.com/motivatingstudentsbydesign2e
- Read this free online journal article: Jones, B. D. (2009). Motivating students to engage in learning: The MUSIC Model of Academic Motivation. International Journal of Teaching and Learning in Higher Education, 21(2), 272-285.
- http://www.isetl.org/iitlhe/pdf/lJTLHE774.pdf
- Visit the MUSIC model website: www.theMUSICmodel.com
- Watch these YouTube videos: https://www.youtube.com/watch?v=0UvEGaJ9AK8

When citing the MUSIC Model of Motivation, please cite Jones (2009) and Jones (2018) as shown above.

## Why is the MUSIC Inventory needed?

Although researchers have used other scales to measure constructs similar to those in the MUSIC model, there are no other existing scales that measure these five aspects of the motivational climate with a consistent Likert-format scale with the same descriptors at each point. Also, all five of the MUSIC Inventory scales have been used in many different validation studies with students from many different ages and cultures (see this website for links to these studies:
https://www.themusicmodel.com/questionnaires/). To address these problems and others, the MUSIC Inventory was developed by Brett Jones to ensure that the items and scales for each MUSIC component would be similar in format and provide valid scores.

## Information About the MUSIC ${ }^{\circledR}$ Inventory

## What versions of the MUSIC Inventory are available?

Dr. Jones developed the College Student version of the MUSIC Inventory first and then created the other versions. Since then, the MUSIC Inventory has been translated to many different languages. Most of the inventory versions are included in this guide, but others may not be included yet because they are still under construction. Please contact Brett Jones (brettdjones@gmail.com) for up-to-date information on other versions. Other versions of the MUSIC Inventory in this guide include:

- The Professor version of the MUSIC Inventory, which was published in the book Motivating Students by Design (Jones, 2018). This inventory can be completed by teachers to assess their own perceptions of their instruction.
- The Cognitive Training version, which can be used by in clinics that deliver cognitive training services.

Some versions of the inventory have been examined for validity more rigorously than others, so please read the instructions in this guide related to each version for the validity evidence available at this time. Research is ongoing with all of these versions in English and in other languages.

## Can I use the MUSIC Inventory for my research or to evaluate my instruction?

If you publish your results in journal articles, books, presentations, websites, etc. you may use the MUSIC Inventory for non-commercial research and teaching purposes as long as you: (1) obtain the written permission of Brett Jones by emailing him (brettdjones@gmail.com), and (2) provide the reference to the MUSIC ${ }^{\circledR}$ Model of Motivation (Jones, 2009, 2018) and the MUSIC ${ }^{\circledR}$ Model of Academic Motivation Inventory (Jones, 2012/2023). The ${ }^{\circledR}$ at the end of MUSIC ${ }^{\circledR}$ indicates that it is a registered trademark of Brett D. Jones, all rights reserved. Please note this in your use of the MUSIC ${ }^{\circledR}$ Inventory as well, at least the first time that you use the full name of the inventory ("the MUSIC ${ }^{\circledR}$ Model of Academic Motivation Inventory").

If you are using your results for your own instructional purposes, there is no need to cite anything, simply use the inventories as needed. It is not acceptable to use the MUSIC Inventory for commercial purposes (that is, for monetary gain on your own account or on that of a third party, or for indirect financial gain by a commercial entity). Dr. Jones has never sold any version of the MUSIC Inventory, they are all available for free because he wants to help others improve teaching at all levels.

## How do I cite the MUSIC Model and Inventory in my publications and presentations?

The MUSIC Model and the Inventory are cited differently, as described here.

- Cite the MUSIC ${ }^{\circledR}$ Model of Motivation with these two references (Jones, 2009, 2018):
- Jones, B. D. (2018). Motivating students by design: Practical strategies for professors (2nd ed.). CreateSpace. https://vtechworks.lib.vt.edu/handle/10919/102728
- Free PDF to download: https://tinyurl.com/MotivatingStudents2pdf
- Print book version to buy for \$19: http://tinyurl.com/motivatingstudentsbydesign2e
- Jones, B. D. (2009). Motivating students to engage in learning: The MUSIC Model of Academic Motivation. International Journal of Teaching and Learning in Higher Education, 21(2), 272-285. http://www.isetl.org/ijtlhe/pdf/IJTLHE774.pdf
- Cite the MUSIC ${ }^{\oplus}$ Model of Academic Motivation Inventory with this reference:
- Jones, B. D. (2023, August). User guide for assessing the components of the MUSIC ${ }^{\oplus}$ Model of Motivation. Retrieved from http://www.theMUSICmodel.com


## What does the MUSIC Inventory measure?

The MUSIC Inventory is a multidimensional measure of the motivational climate in a learning environment. It measures students' perceptions related to the five primary components of the MUSIC Model of Motivation: eMpowerment, Usefulness, Success, Interest, and Caring. The components of the MUSIC model are not directly related to any one specific construct because they are names of categories of teaching strategies that can be used to motivate students. For example, the Interest component of the model refers to teaching strategies that can be used to interest students. However, to measure students' perceptions of the components, it becomes necessary to either create a new construct or to align each category with a construct that is well-known in the fields of educational psychology and motivation science. Because the field of motivation already has many constructs, Dr. Jones chose to align each MUSIC Inventory scale with an existing motivation construct, as closely as possible. The definitions for each of the MUSIC model constructs in the MUSIC Inventory and the related constructs are provided in Table 1.

Table 1. The MUSIC Inventory Constructs and Their Definitions

| MUSIC model <br> constructs | Definitions <br> The degree to which a student perceives that: | Related constructs |
| :--- | :--- | :--- |
| Empowerment | they have control of their learning environment <br> in the course | Autonomy (Deci \& Ryan, 1991) |
| Usefulness | the coursework is useful to their future | Utility value (Wigfield \& Eccles, 2000) |
| Success | they can succeed at the coursework |  <br> Eccles, 2000) |
| Interest | the instructional methods and coursework are <br> interesting | Situational interest (Hidi \& Renninger, <br> 2006) |
| Caring | the instructor cares about whether the student <br> succeeds in the coursework and cares about <br> the student's well-being | Caring (Noddings, 1992) |

a For the 19-item College Student version, the definition for interest is "The degree to which a student perceives that the instructional methods are interesting." That is, interest in the "coursework" is not assessed.

Please note that although the MUSIC Inventory aligns with these constructs, the teaching strategies associated with the MUSIC Model of Motivation are not limited to these constructs or associated theories. As explained in Jones (2018, p. 195-196), the five MUSIC model components are groups of strategies that are based on many different theories, including (but not limited to) to the following:

- arousal theories (Berlyne, 1960; Duffy, 1957),
- attachment theory (Ainsworth, 1979; Bowlby, 1969),
- attribution theory (Weiner, 1986; 2000),
- behaviorist theories (Skinner, 1953; Skinner \& Epstein, 1982),
- belonging theories (Baumeister \& Leary, 1995; Goodenow, 1993),
- caring theories (Johnson, Johnson, \& Anderson, 1983; Noddings, 1984, 1992; Wentzel, 1999),
- competence theories (Elliot \& Dweck, 2005; Harter, 1978; White, 1959),
- domain identification theory (Osborne \& Jones, 2011)
- emotion theories (Pekrun, 2009),
- expectancy-value theory (Eccles et al., 1983; Wigfield \& Eccles, 2000);
- flow theory (Csikszentmihalyi, 1990),
- future time perspective theory (Lens, 1988; Lewin, 1942; Nuttin \& Lens, 1985)
- goal orientation theories (Ames, 1992; Elliot, 1999; Maehr \& Midgley, 1991; Nicholls, 1984),
- goal setting theories (Locke \& Latham, 2002)
- goal theories (Ford, 1992; Locke \& Latham, 2002),
- identity and identification theories (Finn, 1989; James, 1890/1981; Voelkl, 1997),
- interest theories (Hidi \& Renninger, 2006; Krapp, 2005; Schraw \& Lehman, 2001),
- locus of control (deCharms, 1968, 1976)
- rewards and intrinsic/extrinsic motivation theories (Cameron \& Pierce, 1994; Deci, 1975; Deci, Koestner, \& Ryan, 1999; Deci \& Ryan, 1985),
- self-concept theories (Marsh, 1990; Shavelson \& Bolus, 1982),
- self-determination theory (Deci \& Ryan, 1985, 2000),
- self-efficacy theory (Bandura, 1977, 1986, 1997; Pajares, 1996),
- self-esteem theories (Rosenberg, 1979),
- self-regulation theories (Bandura, 1986; Pintrich \& de Groot, 1990; Zimmerman, 2000),
- self-theories of intelligence (Dweck, 1999, 2006; Mueller \& Dweck, 1998);
- self-worth theories (Covington, 1992),
- social cognitive theory (Bandura, 1986, 1997), and
- stereotype theories (Aronson \& Steele, 2005).


## What are the MUSIC constructs related to?

The MUSIC constructs have been shown to be related to students' motivation, engagement, identification with a domain (e.g., science), career goals, course ratings, and instructor ratings. Over the past several decades, researchers have provided documentation of these relationships for one or more of the MUSIC constructs. More recently, Dr. Jones and his MUSIC Model Lab associates have conducted studies using all five of the MUSIC model components in the same study to examine the relationships when all five components are included in one study. It is beyond the scope of this document to explain the results of these studies, but some representative studies that included all five MUSIC model components in one study are listed here in order of recency.

- Jones, B. D., Wilkins, J. L. M., Schram, Á. B., Gladman, T., Kenwright, D., \& Lucio-Ramírez, C. A. (2023). Validating a measure of motivational climate in health science courses. BMC Medical Education, 23, Article 548. https://doi.org/10.1186/s12909-023-04311-3
- Jones, B. D., Khajavy, G. H., Li, M., Mohamed, H. E., \& Reilly, P. (2023). Examining the crosscultural validity of the MUSIC Model of Academic Motivation Inventory in English language courses. SAGE Open, 13(1), 1-16. https://doi.org/10.1177/21582440231156583
- Jones, B. D., \& Wilkins, J. L. M. (2022). Validating the MUSIC Model of Academic Motivation Inventory: Evidence for the short forms of the college student version. Journal of Psychoeducational Assessment. https://doi.org/10.1177/07342829221121695
- Li, M., Jones, B. D., Williams, T. O., \& Guo, Y. (2022). Chinese students' perceptions of the motivational climate in college English courses: Relationships between course perceptions,
engagement, and achievement. Frontiers in Psychology, 13, Article 853221. https://doi.org/10.3389/fpsyg.2022.853221
- Jones, B. D., Fenerci-Soysal, H., \& Wilkins, J. L. M. (2022). Measuring the motivational climate in an online course: A case study using an online survey tool to promote data-driven decisions. Project Leadership \& Society, 3, Article 100046. https://doi.org/10.1016/j.plas.2022.100046
- Jones, B. D., Miyazaki, Y., Li, M., \& Biscotte, S. (2022). Motivational climate predicts student evaluations of teaching: Relationships between students' course perceptions, ease of course, and evaluations of teaching. AERA Open, 8(1), 1-17.
https://doi.org/10.1177/23328584211073167
- Jones, B. D., Krost, K., \& Jones, M. W. (2021). Relationships between students' course perceptions, effort, and achievement in an online course. Computers and Education Open, 2, Article 100051. https://doi.org/10.1016/i.caeo.2021.100051
- Wilkins, J. L. M., Jones, B. D., \& Rakes, L. (2021). Students' class perceptions and ratings of instruction: Variability across undergraduate mathematics courses. Frontiers in Psychology, 12(576282). https://doi.org/10.3389/fpsyg.2021.576282
- Topuz, K., Jones, B. D., Sahbaz, S., \& Moqbel, M. (2021). A methodology to combine theoretical knowledge with a data-driven probabilistic graphical model. Journal of Business Analytics. Advance online publication. https://doi.org/10.1080/2573234X.2021.1937351
- Saperstein, A. M., Jones, B. D., Hansen, M. C., \& Medalia, A. (2020). The Cognitive Training version of the MUSIC ${ }^{\circledR}$ Model of Motivation Inventory: A follow-up validity study. Schizophrenia Research, 216, 516-519. https://doi.org/10.1016/i.schres.2019.12.027
- Gladman, T., Gallagher, S., \& Ali, A. (2020). MUSIC® for medical students: Confirming the reliability and validity of a multi-factorial measure of academic motivation for medical education, Teaching and Learning in Medicine, 32(5), 494-507. https://doi.org/10.1080/10401334.2020.1758704
- Jones, B. D. (2019). Testing the MUSIC Model of Motivation Theory: Relationships between students' perceptions, engagement, and overall ratings. The Canadian Journal for the Scholarship of Teaching and Learning, 10(3), 1-15. https://doi.org/10.5206/cjsotlrcacea.2019.3.9471
- Jones, B. D., Byrnes, M. K., \& Jones, M. W. (2019). Validation of the MUSIC Model of Academic Motivation Inventory: Evidence for use with veterinary medicine students. Frontiers in Veterinary Science, 6(11), 1-9. https://doi.org/10.3389/fvets .2019.00011
- Jones, B. D., \& Carter, D. (2019). Relationships between students' course perceptions, engagement, and learning. Social Psychology of Education: An International Journal, 22, 819839. https://doi.org/10.1007/s11218-019-09500-x
- Chittum, J. R., Jones, B. D., \& Carter, D. M. (2019). A person-centered investigation of patterns in college students' perceptions of motivation in a course. Learning and Individual Differences, 69, 94-107. https://doi.org/10.1016/j.lindif.2018.11.007
- Hansen, M. C., Jones, B. D., Eack, S. M., Glenthoj, L. B., Ikezawa, S., Iwane, T., ...Medalia, A. (2019). Validation of the MUSIC Model of Motivation Inventory for use with cognitive training for schizophrenia spectrum disorders: A multinational study. Schizophrenia Research, 206, 142148. https://doi.org/10.1016/j.schres.2018.11.037
- Chittum, J. R., Jones, B. D., Akalin, S., \& Schram, A. B. (2017). The effects of an afterschool STEM program on students' motivation and engagement. International Journal of STEM Education, 4(11), 1-16. https://doi.org/10.1186/s40594-017-0065-4
- Chittum, J. R., \& Jones, B. D. (2017). Identifying pre-high school students' science class motivation profiles to increase their science identification and persistence. Journal of Educational Psychology, 109(8), 1163-1187. https://doi.org/10.1037/edu0000176
- Jones, B. D., Sahbaz, S., Schram, A. B., \& Chittum, J. R. (2017). Using psychological constructs from the MUSIC Model of Motivation to predict students' science identification and career goals: Results from the U.S. and Iceland. International Journal of Science Education, 39(8), 1089-1108. https://doi.org/10.1080/09500693.2017.1319093
- Parkes, K., Jones, B. D., \& Wilkins, J. L. M. (2017). Assessing music students' motivation using the MUSIC Model of Academic Motivation Inventory. UPDATE: Applications of Research in Music Education, 35(3), 16-22. https://doi.org/10.1177/8755123315620835
- Jones, B. D., \& Skaggs, G. E. (2016). Measuring students' motivation: Validity evidence for the MUSIC Model of Academic Motivation Inventory. International Journal for the Scholarship of Teaching and Learning, 10(1). http://digitalcommons.georgiasouthern.edu/ij-sot//vol10/iss1/7
- Jones, B. D., Tendhar, C., \& Paretti, M. C. (2016). The effects of students' course perceptions on their domain identification, motivational beliefs, and goals. Journal of Career Development, 43(5), 383-397. https://doi.org/10.1177/0894845315603821
- Jones, B. D., Chittum, J. R., Akalin, S., Schram, A. B., Fink, J., Schnittka, C.,...Brandt, C. (2015). Elements of design-based science activities that affect students' motivation. School Science and Mathematics, 115(8), 404-415. https://doi.org/10.1111/ssm. 12143
- Jones, B. D., Ruff, C., \& Osborne, J. W. (2015). Fostering students' identification with mathematics and science. In K. A. Renninger, M. Nieswandt, \& S. Hidi (Eds.), Interest in mathematics and science learning (pp. 331-352). Washington, DC: American Educational Research Association. https://doi.org/10.3102/978-0-935302-42-4 19
- Jones, B. D., Osborne, J. W., Paretti, M. C., \& Matusovich, H. M., (2014). Relationships among students' perceptions of a first-year engineering design course and their engineering identification, motivational beliefs, course effort, and academic outcomes. International Journal of Engineering Education, 30(6A), 1340-1356. https://www.ijee.ie/contents/c300614A.html
- Jones, B. D., Epler, C. M., Mokri, P., Bryant, L. H., \& Paretti, M. C. (2013). The effects of a collaborative problem-based learning experience on students' motivation in engineering capstone courses. Interdisciplinary Journal of Problem-based Learning, 7(2), 34-71. https://doi.org/10.7771/1541-5015.1344
- Jones, B. D., Watson, J. M., Rakes, L., \& Akalin, S. (2012). Factors that impact students' motivation in an online course: Using the MUSIC Model of Academic Motivation. Journal of Teaching and Learning with Technology, 1(1), 42-58. https://scholarworks.iu.edu/journals/index.php/jotlt/article/view/2040
- Jones, B. D. (2010). An examination of motivation model components in face-to-face and online instruction. Electronic Journal of Research in Educational Psychology, 8(3), 915-944. http://www.investigacion-psicopedagogica.com/revista/articulos/22/english/Art 22 499.pdf


## MUSIC ${ }^{\circledR}$ Inventory (College Student version)

## Purpose

The purpose of the College Student version of the MUSIC Inventory is to measure the motivational climate in a college course by assessing the extent to which college students perceive the presence of each of the MUSIC model components. It can be used by professors to help them identify areas of strengths and weaknesses related to factors that affect students' motivation and engagement.

## Three Forms of the College Student Version

There are three different forms of the College Student version of the MUSIC Inventory: the 26-item form, the 20 -item form, and the 19 -item form. All of the forms include scales that measure students' perceptions of eMpowerment, Usefulness, Success, Interest, and Caring.

- The 26-item form is the original inventory and it has been used the longest. This form has been validated for use with many different populations. However, it is not really needed any more because the psychometric properties of the shorter forms are as good, or almost as good (Jones \& Wilkins, 2022), and they can be completed in less time because they have fewer items.
- In the 20-item form, the items are exactly the same as the items in the 26 -item form except that 6 of the items have been removed. The 20-item form measures the same constructs that the 26 -item form measures.
- In the 19-item form, the items are exactly the same as the items in the 26 -item form except that 7 of the items have been removed. The 19-item form measures the same constructs that the 26 -item and 20 -item forms measure except for the interest scale. Although all three forms measure situational interest, the 19 -item form only measures the degree to which a student perceives that the instructional methods are interesting. The 26 -item and 20 -item forms measure the degree to which a student perceives that a combination of the instructional methods and coursework are interesting. The difference in the constructs measured is very minor; however, statistical analyses have demonstrated that the items that measure students' interest in the coursework tend to also load with items that measure students' perceptions of the usefulness of the coursework. Therefore, the 19 -item version measures a situational interest construct that is more distinct from the usefulness construct.

Which form of the College Student version should you use? I recommend using the 19-item form because it takes students less time to complete and the validity of the scores is as good (or almost as good) as the 26 -item version (see Jones \& Wilkins, 2022; Jones, Wilkins, Schram, Gladman, Kenwright, \& Lucio-Ramírez, 2023). In addition, the Interest and Usefulness scales are more distinct than in the other forms, which may be important if you are conducting statistical analyses that involve using all five of the MUSIC scale scores in the same analysis (e.g., regression, structural equation modeling). The only time I would consider using one of the other forms was if I was only computing the means for each scale and I wanted a measure of students' interest in the instructional methods and coursework.

## Instructions for Administering the College Student version of the MUSIC Inventory

- Title the inventory as general as possible, such as "Survey of Students' Course Perceptions," "Course Questionnaire," "Course Survey," or "Course Feedback," and avoid using words such as "motivation" or something similar that could affect students' responses because of their preconceived notions of this word. Also, delete the text above the word "Instructions" in the examples on the following pages.
- Often, a purpose statement is provided to explain the purpose of the survey (e.g., The purpose of this survey is to assess students' perceptions of this course.). This is usually followed a statement about the fact that their names will not be provided to the instructor (if the names are used to give students credit for completing the survey). Here is an example:


## Survey of Students' Course Perceptions

The purpose of this assignment is to gather information about this course so that it can be improved.

Please provide your name and email address to receive credit for completing this assignment. Your name and email will not be included in the results that are provided to the instructor.

- Then, use the following instructions:


## INSTRUCTIONS

The items that refer to a course or instructor refer to this course and your primary instructor.

Also note that the word "coursework" refers to anything that you did in this course, including assignments, activities, readings, etc.

There are no right or wrong answers for these questions. Please answer them honestly. Some of the questions might seem repetitive, but it is important that you answer them all to obtain the best possible results.

- Order the items randomly. The versions in this guide are already ordered randomly and can be used in the order provided in this guide. But if you administer the inventory online and your online survey software has the feature, I recommend that you have the software randomize the questions differently for each student.
- For the 1 to 6 rating scale, provide each number along with the associated description (e.g., $1=$ disagree). The scale is presented correctly in this guide.
- It is possible to use the present-tense version of the inventory at any time in the course; however, the items can be worded in the past tense when the inventory is administered near the end of a course. Both of these versions are presented on the following pages for the college version. I have no reason to believe that wording it one way or the other has a significant effect on the scores. The tense version should be selected based on what will make sense to the students reading the items.
- To assess students' perceptions at the "major" or "program" level (as opposed to at the "course" level), items have been changed as shown in the third version below.
- Do not interpret any of the items for the students, they must make their own interpretation of the items. If they ask you what an item means, say something similar to: "Answer it based on whatever you think it means."
- The wording could be changed to focus on a particular activity within a class by changing the words "course" and "coursework" to "activity."
- Typically, responses have been collected through online survey software (e.g., Survey Monkey, Qualtrics); however, it is possible to administer the inventory on paper. Studies have
not been conducted to determine how the format of the items (online versus paper) affects students' responses.
- Avoid displaying the numbers and labels in ways that present them as different distances apart because the distance between the items is assumed to be equal (e.g., the distance from 1 to 2 is assumed to be the same as the distance from 4 to 5 ). As an example, when spaced horizontally, avoid having the spacing width of the option for " $1=$ Strongly Disagree" larger than the width for the option for " 2 = Disagree" because there are more letters in the "Strongly Disagree" label. Make the column widths for the options the same. I recommend avoiding this issue by presenting the options vertically as shown here because the distance between the rows is equal.

```
The instructor is respectful of me.
O \(1=\) Strongly Disagree
○ \(2=\) Disagree
○ 3 = Somewhat Disagree
○ \(4=\) Somewhat Agree
O \(5=\) Agree
○ \(6=\) Strongly Agree
```


## Validity Evidence

The validity evidence for the use of this version of the MUSIC Inventory with college students is very good, if not excellent, as is shown by the results of several studies with college students in different cultures and countries. The interpretations of the Cronbach's alpha values are based on George and Mallery's (2003) criteria.

- Jones, Khajavy, Li, Mohamed, and Reilly (2023) compared the scores of the 26 -item MUSIC Inventory across four different countries (Iran, Mexico, China, and Egypt) using the translated versions for each country. They administered the survey to 1,147 students enrolled in university English language courses. The Cronbach's alpha values were acceptable across all four countries, ranging from .62 to .92 on the five MUSIC scales. They also documented statistically significant relationships between the five MUSIC components and behavioral engagement (as measured by Course Effort), and to a lesser extent, disaffection. The measurement invariance testing provided evidence that the factor structure of the MUSIC Inventory was similar across the four countries.
- Jones and Wilkins (2022) provided validity evidence for the scores produced from the 26 -item version, the 20 -item version, and the 19 -item version using data collected from 2,951 undergraduate students in 32 courses. All of the Cronbach's alpha values were good or excellent, the confirmatory factor analyses produced fit indices within acceptable ranges, and the MUSIC Inventory scales correlated with student effort, instructor ratings, and course ratings as anticipated.
- Jones, Miyazaki, Li, and Biscotte, S. (2022) used the inventory with 2,949 undergraduate students from 30 different courses and found that the Cronbach's alpha values were good to excellent: .86 for empowerment, .94 for usefulness, .87 for success, .92 for interest, and .86 for caring.
- Jones, Krost, and Jones (2021) used the inventory with 1,446 students in an online Geography course and found the Cronbach's alpha values to be good to excellent: . 85 empowerment, .90 for usefulness, .86 for success, .90 for interest, and .84 for caring.
- Wilkins, Jones, \& Rakes (2021) used the inventory with 795 undergraduate students in 43 mathematics courses. The Cronbach's alpha values were good to excellent: . 89 for empowerment, .92 for usefulness, .92 for success, .93 for interest, and .91 for caring.
- Jones (2019) used the inventory with 285 students from eight different college courses that included these topics: biological systems engineering, community systems thinking, educational psychology, environmental science, geography, human development, mathematics, and neuroscience. Almost all (37 of the 40) of the Cronbach's alpha values calculated ( 8 courses times five MUSIC constructs equals 40 alpha values) were excellent (greater than 0.9 ) or good (between 0.7 and 0.9 ), two were acceptable ( 0.62 and 0.67 ), and only one was unacceptable (0.57). This study provided evidence for predictive validity by demonstrating that the MUSIC components were positively related to students' effort (behavioral engagement), course rating, and instructor rating.
- Chittum, Jones, and Carter (2019) analyzed the data from 552 students in an undergraduate college course and reported consistently high Cronbach's alpha values of .83 for empowerment, .87 for usefulness, .86 for success, .87 for interest, and .82 for caring. They conducted an exploratory factor analysis with 200 students and a confirmatory factor analysis with the other 352 students to provide evidence of the five-factor structure of the MUSIC model. They also provided evidence for predictive validity by demonstrating that the MUSIC components were positively related to students' effort (behavioral engagement) and cognitive engagement.
- Tendhar, Singh, and Jones (2017) used the inventory with 812 undergraduate engineering students and obtained Cronbach's alpha values of .90 empowerment, .94 for usefulness, .89 for success, .93 for interest, and .91 for caring. Confirmatory factor analysis produced fit indices within acceptable ranges.
- Jones and Skaggs (2016) used the inventory with 338 students from 221 different face-toface, online, and hybrid (face-to-face and online) courses and reported excellent Cronbach's alpha values of .91 for empowerment, .96 for usefulness, .93 for success, .95 for interest, and .93 for caring. Confirmatory factor analysis showed that the five-factor model fit the data well, as demonstrated by acceptable fit indices.

The validity evidence for the use of this version of the MUSIC Inventory with professional students is very good, if not excellent, as is shown by the results of several studies with medial students, veterinary medicine students, and pharmacy students in several different countries and cultures. The interpretations of the Cronbach's alpha values are based on George and Mallery's (2003) criteria.

- Jones, Wilkins, Schram, Gladman, Kenwright, \& Lucio-Ramírez, 2023 examined the validity evidence for the 19 -item form of the MUSIC Inventory (College Student version) within health science schools in three different countries: New Zealand ( $n=98$ ), Mexico ( $n=231$ ), and Iceland ( $n=338$ ). Translated versions were used in Mexico (the Spanish translation) and Iceland (the Icelandic translation). The Cronbach's alpha values for the 19-item form were generally good or excellent across all three countries, ranging from .79 to .92 on the five MUSIC scales. For all three countries, the fit indices provided by the confirmatory factor analyses were acceptable, and all five MUSIC scales were positively correlated with behavioral engagement (as measured by Course Effort), instructor rating, and course rating.
- Gladman, Gallagher, and Ali (2020) assessed the validity of the inventory with 152 medical students in New Zealand. Internal reliability estimates were good to excellent ( $\alpha=.87$ to .92 ) and the Rasch analysis indicated that the five factors accounted for the response patterns in the data.
- Jones, Byrnes, and Jones (2019) provided validation evidence for the use of the short version of the inventory ( 20 -items) with 578 veterinary medicine students. All of the Cronbach's alpha values were good or excellent and the confirmatory factor analyses produced fit indices and factor loadings within acceptable ranges.
- Pace, Ham, Poole, and Wahaib (2016) provided validation evidence for the use of the inventory with 154 student pharmacists. They reported excellent Cronbach's alpha values of .89 for empowerment, .91 for usefulness, .92 for success, .91 for interest, and .92 for caring. They conducted an exploratory factor analysis and identified the five-factor structure of the MUSIC components as expected.


## Items by Scale for the College Student Version

In the following table, the items with an asterisk (*) can be removed for the 19 -item and 20 -item forms. For the Interest scale, see the notes in the table for which items to remove for the shorter forms.

| Scales | Items by Scale for the College Student version |  |
| :---: | :---: | :---: |
|  | Past tense | Present tense |
| Empowerment | - * I had the opportunity to decide for myself how to meet the course goals. <br> - I had the freedom to complete the coursework my own way. <br> - I had options in how to achieve the goals of the course. <br> - I had control over how I learned the course content. <br> - I had flexibility in what I was allowed to do in this course. | - * I have the opportunity to decide for myself how to meet the course goals. <br> - I have the freedom to complete the coursework my own way. <br> - I have options in how to achieve the goals of the course. <br> - I have control over how I learn the course content. <br> - I have flexibility in what I am allowed to do in this course. |
| Usefulness | - In general, the coursework was useful to me. <br> - The coursework was beneficial to me. <br> - I found the coursework to be relevant to my future. <br> - * I will be able to use the knowledge I gained in this course. <br> - The knowledge I gained in this course is important for my future. | - In general, the coursework is useful to me. <br> - The coursework is beneficial to me. <br> - I find the coursework to be relevant to my future. <br> - * I will be able to use the knowledge I gain in this course. <br> - The knowledge I gain in this course is important for my future. |
| Success | - I was confident that I could succeed in the coursework. <br> - I felt that I could be successful in meeting the academic challenges in this course. <br> - I was capable of getting a high grade in this course. <br> - Throughout the course, I felt that I could be successful on the coursework. | - I am confident that I can succeed in the coursework. <br> - I feel that I can be successful in meeting the academic challenges in this course. <br> - I am capable of getting a high grade in this course. <br> - Throughout the course, I have felt that I could be successful on the coursework. |
| Interest | - (Remove this item for the 19 -item and 20-item forms.) The coursework held my attention. <br> - The instructional methods used in this course held my attention. <br> - I enjoyed the instructional methods used in this course. <br> - (Remove this item for the 20-item form.) The instructional methods engaged me in the course. | - (Remove this item for the 19-item and 20-item forms.) The coursework holds my attention. <br> - The instructional methods used in this course hold my attention. <br> - I enjoy the instructional methods used in this course. <br> - (Remove this item for the 20 -item form.) The instructional methods engage me in the course. |


|  | - (Remove this item for the 19-item form.) I enjoyed completing the coursework. <br> - (Remove this item for the 19-item form.) The coursework was interesting to me. | - (Remove this item for the 19-item form.) I enjoy completing the coursework. <br> - (Remove this item for the 19 -item form.) The coursework is interesting to me. |
| :---: | :---: | :---: |
| Caring | - * The instructor was available to answer my questions about the coursework. <br> - The instructor was willing to assist me if I needed help in the course. <br> - The instructor cared about how well I did in this course. <br> - The instructor was respectful of me. <br> - The instructor was friendly. <br> - * I believe that the instructor cared about my feelings. | - * The instructor is available to answer my questions about the coursework. <br> - The instructor is willing to assist me if I need help in the course. <br> - The instructor cares about how well I do in this course. <br> - The instructor is respectful of me. <br> - The instructor is friendly. <br> - * I believe that the instructor cares about my feelings. |

## MUSIC Inventory (College Student version, 19 items, present tense)

- This is the recommended version for most uses. To be administered anytime during a course or at the end of a course.
- Follow the directions provided on a prior page of this User Guide for how to title the survey and for the instructions that should be given at the beginning of the survey.


## Instructions

Please rate the items in this section using the following scale:

| 1 <br> Strongly <br> disagree2 <br> Disagree | 3 <br> Somewhat <br> disagree | 4 <br> Somewhat <br> agree | 5 <br> Agree | 6 <br> Strongly agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

$\qquad$ 1. The coursework is beneficial to me.
$\qquad$ 2. I am confident that I can succeed in the coursework.
$\qquad$ 3. The instructional methods used in this course hold my attention.
$\qquad$ 4. The instructor is friendly.
$\qquad$ 5. I have the freedom to complete the coursework my own way.
$\qquad$ 6. I enjoy the instructional methods used in this course.
$\qquad$ 7. I feel that I can be successful in meeting the academic challenges in this course.
$\qquad$ 8. The instructor is respectful of me.
$\qquad$ 9. I have options in how to achieve the goals of the course.
10. In general, the coursework is useful to me.
11. I am capable of getting a high grade in this course.
12. The instructional methods engage me in the course.
13. The instructor is willing to assist me if I need help in the course.
14. I have control over how I learn the course content.
15. Throughout the course, I have felt that I could be successful on the coursework.
16. I find the coursework to be relevant to my future.
17. The instructor cares about how well I do in this course.
18. The knowledge I gain in this course is important for my future.
19. I have flexibility in what I am allowed to do in this course.

## Instructions for Scoring the MUSIC Inventory (College Student version, 19-items)

To obtain a score for each scale, average the values for the items in the scales as shown below.
Empowerment score $=($ item $5+$ item $9+$ item $14+$ item $19 / 4$
Usefulness score $=($ item $1+$ item $10+$ item $16+$ item 18) $/ 4$
Success score $=($ item $2+$ item $7+$ item $11+$ item 15) $/ 4$
Interest score $=($ item $3+$ item $6+$ item 12) $/ 3$
Caring score $=($ item $4+$ item $8+$ item $13+$ item 17 $) / 4$
Other important notes:

- Do not sum or average all 19 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivational climate is the sum of the empowerment, usefulness, success, interest, and caring scales. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when they are high on only one or two of the MUSIC components and low on the others.


## MUSIC Inventory (College Student version, 26 items, present tense)

- To be administered near the beginning or middle of a course (however, it can be administered at the end of a course)
- Follow the directions provided on a prior page of this User Guide for how to title the survey and for the instructions that should be given at the beginning of the survey.


## Instructions

Please rate the items in this section using the following scale:

| 1 <br> Strongly <br> disagree2 <br> Disagree | 3 <br> Somewhat <br> disagree | 4 <br> Somewhat <br> agree | 5 <br> Agree | 6 <br> Strongly agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

$\qquad$ 1. The coursework holds my attention.
$\qquad$ 2. I have the opportunity to decide for myself how to meet the course goals.
$\qquad$ 3. In general, the coursework is useful to me.
$\qquad$ 4. The instructor is available to answer my questions about the coursework.
$\qquad$ 5. The coursework is beneficial to me.
$\qquad$ 6. The instructional methods used in this course hold my attention.
$\qquad$ 7. I am confident that I can succeed in the coursework.
$\qquad$ 8. I have the freedom to complete the coursework my own way.
$\qquad$ 9. I enjoy the instructional methods used in this course.
$\qquad$ 10. I feel that I can be successful in meeting the academic challenges in this course.
11. The instructional methods engage me in the course.
12. I have options in how to achieve the goals of the course.
13. I enjoy completing the coursework.
14. I am capable of getting a high grade in this course.
15. The coursework is interesting to me.
16. The instructor is willing to assist me if I need help in the course.
17. I have control over how I learn the course content.
18. Throughout the course, I have felt that I could be successful on the coursework.
19. I find the coursework to be relevant to my future.
20. The instructor cares about how well I do in this course.
21. I will be able to use the knowledge I gain in this course.
22. The instructor is respectful of me.
23. The knowledge I gain in this course is important for my future.
24. The instructor is friendly.
25. I believe that the instructor cares about my feelings.
26. I have flexibility in what I am allowed to do in this course.

## MUSIC Inventory (College Student version, 26 items, past tense)

- Can be administered near the end of a course (or the present tense version can be used)
- Follow the directions provided on a prior page of this User Guide for how to title the survey and for the instructions that should be given at the beginning of the survey.


## Instructions

Please rate the items in this section using the following scale:

| 1 <br> Strongly <br> disagree Disagree | 3 <br> Somewhat <br> disagree | 4 <br> Somewhat <br> agree | 5 <br> Agree | 6 <br> Strongly agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

$\qquad$ 1. The coursework held my attention.
$\qquad$ 2. I had the opportunity to decide for myself how to meet the course goals.
$\qquad$ 3. In general, the coursework was useful to me.
$\qquad$ 4. The instructor was available to answer my questions about the coursework.
$\qquad$ 5. The coursework was beneficial to me.
$\qquad$ 6. The instructional methods used in this course held my attention.
$\qquad$ 7. I was confident that I could succeed in the coursework.
$\qquad$ 8. I had the freedom to complete the coursework my own way.
$\qquad$ 9. I enjoyed the instructional methods used in this course.
$\qquad$ 10. I felt that I could be successful in meeting the academic challenges in this course.
$\qquad$ 11. The instructional methods engaged me in the course.
12. I had options in how to achieve the goals of the course.
13. I enjoyed completing the coursework.
14. I was capable of getting a high grade in this course.
15. The coursework was interesting to me.
16. The instructor was willing to assist me if I needed help in the course.
17. I had control over how I learned the course content.
18. Throughout the course, I felt that I could be successful on the coursework.
19. I found the coursework to be relevant to my future.
20. The instructor cared about how well I did in this course.
21. I will be able to use the knowledge I gained in this course.
22. The instructor was respectful of me.
23. The knowledge I gained in this course is important for my future.
24. The instructor was friendly.
25. I believe that the instructor cared about my feelings.
26. I had flexibility in what I was allowed to do in this course.

## MUSIC Inventory (College Student version, present tense, 26 items, major/program level)

- To be administered while the student is enrolled in college
- Use the instructions below. Title the survey following the directions in a prior page of this User Guide. Also, use the directions on a prior page for how to format the 1 to 6 scale.


## Instructions

Thinking about the [insert name of major or program] courses you have taken and are currently taking in your academic major (i.e., [insert specific majors]), please rate your level of agreement or disagreement with the following statements using the following scale:

| 1 <br> Strongly <br> disagree | 2 <br> Disagree | 3 <br> Somewhat <br> disagree | 4 <br> Somewhat <br> agree | 5 <br> Agree | 6 <br> Strongly agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

There are no right or wrong answers for these questions. Please answer them honestly. Some of the questions might seem repetitive, but it is important that you answer them all to obtain the best possible results.

Also, note that the word "coursework" refers to anything that you did in these courses, including assignment, activities, readings, etc.
$\qquad$ 1. The coursework holds my attention.
$\qquad$ 2. I have the opportunity to decide for myself how to meet course goals.
$\qquad$ 3. In general, the coursework is useful to me.
$\qquad$ 4. The instructors are available to answer my questions about the coursework.
$\qquad$ 5. The coursework is beneficial to me.
$\qquad$ 6. The instructional methods used in the courses hold my attention.
$\qquad$ 7. I am confident that I can succeed in the coursework.
$\qquad$ 8. I have the freedom to complete the coursework my own way.
9. I enjoy the instructional methods used in the courses.
10. I feel that I can be successful in meeting the academic challenges in the courses.
11. The instructional methods engage me in the courses.
12. I have options in how to achieve the goals of the courses.
13. I enjoy completing the coursework.
14. I am capable of getting a high grade in the courses.
15. The coursework is interesting to me.
16. The instructors are willing to assist me if I need help in a course.
17. I have control over how I learn the course content.
18. Throughout the courses, I have felt that I could be successful on the coursework.
19. I find the coursework to be relevant to my future.
20. The instructors care about how well I do in their courses.
21. I will be able to use the knowledge I gain in the courses.
$\qquad$ 22. The instructors are respectful of me.
23. The knowledge I gain in the courses is important for my future.
24. The instructors are friendly.
25. I believe that the instructors care about my feelings.
26. I have flexibility in what I am allowed to do in the courses.

## Instructions for Scoring the MUSIC Inventory (College Student version, 26-items)

To obtain a score for each scale, average the values for the items in the scales as shown below.
Empowerment score $=($ item $2+$ item $8+$ item $12+$ item $17+$ item 26) $/ 5$
Usefulness score $=($ item $3+$ item $5+$ item $19+$ item $21+$ item 23) $/ 5$
Success score $=($ item $7+$ item $10+$ item $14+$ item 18) $/ 4$
Interest score $=($ item $1+$ item $6+$ item $9+$ item $11+$ item $13+$ item 15) $/ 6$
Caring score $=($ item $4+$ item $16+$ item $20+$ item $22+$ item $24+$ item 25) $/ 6$
Other important notes:

- Do not sum or average all 26 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivational climate is the sum of the empowerment, usefulness, success, interest, and caring scales. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when they are high on only one or two of the MUSIC components and low on the others.


## MUSIC ${ }^{\circledR}$ Inventory (Professor version)

## Purpose

The purpose of the Professor version of the MUSIC Inventory is to measure the extent to which professors believe that students perceive the presence of each of the MUSIC model components in a college course. The Professor version of the MUSIC Inventory is different from the College Student version of the inventory because it is administered to the professor instead of to the students (professors can administer it to themselves). I use the term "Professor" for this version as a broad term to include professors, teachers, lecturers, instructors, and anyone who designs and implements instruction for learners.

The Professor version can be used to identify areas of strengths and weaknesses related to factors that affect students' motivation and engagement. It is intended to be used as a reflection tool along with other sources of data, such as the College Student version of the MUSIC Inventory. The items are almost identical to the College Student version except I changed the wording to make them appropriate for a professor to answer.

## Instructions for Administering the Professor version of the MUSIC Inventory

The instructions for this version are the same as the instructions provided above in the section titled "Instructions for Administering the College Student version of the MUSIC Inventory."

## Validity Evidence

The Professor version of the MUSIC Inventory is intended to be used as a reflection tool by the professor and has not yet been validated for research purposes (although research is in process).

The inventories are provided on the following pages (also note that there is a short-form version provided after the "Instructions for Scoring" page).

## MUSIC Inventory (Professor version, present tense)

(to be administered near the beginning or middle of a course, although it can be used at the end)

## Instructions

List a course for which you want to assess students' motivation: $\qquad$
Respond to the items below in relation to this one course using this scale:

| 1 <br> Strongly <br> disagree | 2 <br> Disagree | 3 <br> Somewhat <br> disagree | 4 <br> Somewhat <br> agree | 5 <br> Agree | 6 <br> Strongly <br> agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

Note that the word "coursework" refers to anything that students do in the course, including assignments, activities, readings, etc.

## Students believe that:

$\qquad$ 1. the coursework holds their attention.
2. they have the opportunity to decide for themselves how to meet the course goals.
3. in general, the coursework is useful to them.
4. I am available to answer their questions about the coursework.
5. the coursework is beneficial to them.
6. the instructional methods used in this course hold their attention.
7. they are confident that they can succeed in the coursework.
$\qquad$ 8. they have the freedom to complete the coursework their own way.
9. they enjoy the instructional methods used in this course.
10. they can be successful in meeting the academic challenges in this course.
11. the instructional methods engage them in the course.
12. they have options in how to achieve the goals of the course.
13. they enjoy completing the coursework.
14. they are capable of getting a high grade in this course.
15. the coursework is interesting.
16. I am willing to assist them if they need help in the course.
17. they have control over how they learn the course content.
18. throughout the course, they could be successful on the coursework.
19. the coursework is relevant to their future.
20. I care about how well they do in this course.
21. they will be able to use the knowledge they gain in this course.
22. I am respectful of them.
23. the knowledge they gain in this course is important for their future.
24. I am friendly.
25. I care about their feelings.
26. they have flexibility in what they are allowed to do in this course.

## MUSIC Inventory (Professor version, past tense)

(can be administered near the end of a course, or the present tense version can be used)

## Instructions

List a course for which you want to assess students' motivation:
Respond to the items below in relation to this one course using this scale:

| 1 <br> Strongly <br> disagree | 2 <br> Disagree | 3 <br> Somewhat <br> disagree | 4 <br> Somewhat <br> agree | 5 <br> Agree | 6 <br> Strongly <br> agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

Note that the word "coursework" refers to anything that students do in the course, including assignments, activities, readings, etc.

## Students believed that:

$\qquad$ 1. the coursework held their attention.
2. they had the opportunity to decide for themselves how to meet the course goals.
3. in general, the coursework was useful to them.
4. I was available to answer their questions about the coursework.
5. the coursework was beneficial to them.
6. the instructional methods used in this course held their attention.
7. they were confident that they could succeed in the coursework.
$\qquad$ 8. they had the freedom to complete the coursework their own way.
9. they enjoyed the instructional methods used in this course.
$\qquad$ 10. they could be successful in meeting the academic challenges in this course.
11. the instructional methods engaged them in the course.
12. they had options in how to achieve the goals of the course.
13. they enjoyed completing the coursework.
14. they were capable of getting a high grade in this course.
15. the coursework was interesting.
16. I was willing to assist them if they needed help in the course.
17. they had control over how they learned the course content.
18. throughout the course, they could be successful on the coursework.
19. the coursework was relevant to their future.
20. I cared about how well they did in this course.
21. they would be able to use the knowledge they gained in this course.
22. I was respectful of them.
23. the knowledge they gained in this course was important for their future.
24. I was friendly.
25. I cared about their feelings.
26. they had flexibility in what they were allowed to do in this course.

## Instructions for Scoring the MUSIC Inventory (Professor version)

To obtain a score for each of the five scales, place the item numbers from the prior page onto the corresponding line below. Then, average the values for the items in each scale by adding the numbers and dividing by the total number of items in the scale as shown below.
(item $2+$ item $8+$ item $12+$ item $17+$ item 26) / 5
$\qquad$ $+$ $\qquad$
$\qquad$ $+$ $\qquad$ ) $15=$ $\qquad$ = eMpowerment
(item $3+$ item $5+$ item $19+$ item 21 + item 23) / 5
$\qquad$ $+$ $\qquad$ $+$ $\qquad$ $+\quad$ _ ) $/ 5=$ $\qquad$ = Usefulness
(item $7+$ item $10+$ item $14+$ item 18) / 4
$\qquad$
$\qquad$
$\qquad$ $+$ $\qquad$ ) $/ 4=$ $\qquad$ = Success
(item $1+$ item $6+$ item $9+$ item $11+$ item $13+$ item 15) / 6
$\qquad$ $+$ $\qquad$ $+$ $+$ $\qquad$ ) $/ 6=$ $\qquad$ = Interest
(item $4+$ item $16+$ item $20+$ item $22+$ item $24+$ item 25) / 6


NOTE: Do not sum or average all 26 items because this produces a meaningless value. It's inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when only one or two of her MUSIC perceptions are high and the others are low.

Look at your scores for each MUSIC component. Higher numbers indicate that your instruction is more consistent with the strategies related to those MUSIC components. Lower numbers indicate that you may be able to implement more strategies consistent with those MUSIC components. These results cannot be interpreted precisely. Instead, they're intended to help you diagnose areas of possible strengths and weaknesses. So obviously, also use your beliefs about your instructional strengths and weaknesses related to students' MUSIC perceptions. To corroborate your beliefs, you can assess students' perceptions by asking students to complete the student version of the MUSIC Inventory available at www.theMUSICmodel.com.

A short-form Professor version is also available as shown in the table on the next page.

## MUSIC Inventory (short-form Professor version)

The instructions for this version and the directions for administering it are the same as the other Professor versions, including that the items should be ordered randomly.

| Scales | Items by Scale <br> Students believe that: |
| :---: | :---: |
| Empowerment | - they have the freedom to complete the coursework their own way. <br> - they have options in how to achieve the goals of the course. <br> - they have control over how they learn the course content. <br> - they have flexibility in what they are allowed to do in this course. |
| Usefulness | - in general, the coursework is useful to them. <br> - the coursework is beneficial to them. <br> - the coursework is relevant to their future. <br> - the knowledge they gain in this course is important for their future. |
| Success | - they are confident that they can succeed in the coursework. <br> - they can be successful in meeting the academic challenges in this course. <br> - they are capable of getting a high grade in this course. <br> - throughout the course, they could be successful on the coursework. |
| Interest | - the instructional methods used in this course hold their attention. <br> - they enjoy the instructional methods used in this course. <br> - they enjoy completing the coursework. <br> - the coursework is interesting. |
| Caring | - I am willing to assist them if they need help in the course. <br> - I care about how well they do in this course. <br> - I am respectful of them. <br> - I am friendly. |

## MUSIC ${ }^{\circledR}$ Inventory (Middle/High School Student version)

## Purpose

The purpose of the Middle/High School Student version of the MUSIC Inventory is to measure the motivational climate by assessing the extent to which middle or high school students perceive the presence of each of the MUSIC model components in a class or other learning environment. It can be used by teachers to help them identify areas of strengths and weaknesses related to factors that affect students' motivation and engagement.

I developed this version of the MUSIC Inventory by selecting items from the College Student version of the MUSIC Inventory that were most appropriate for middle and high school students. I made a few slight modifications to some of the items to make them more appropriate for this population, but they are very similar to the items in the College Student version.

## Instructions for Administering the Middle/High School version of the MUSIC Inventory

- Substitute the word "science" with the subject area of the class to be surveyed (if it is not a science class).
- Title the inventory as general as possible, such as "Questions About Science Class," and delete the text above the word "Directions" in the examples on the following pages. Titling the inventory as "motivation" or something similar could affect students' responses because of their preconceived notions of this word.
- Order the items randomly. The versions in this guide are already ordered randomly and can be used in the order shown. But if you administer the inventory online and your online survey software has the feature, I recommend that you have the software randomize the questions differently for each student.
- For the 1 to 6 rating scale, provide each number along with the associated description (e.g., 1 = disagree). The scale is presented correctly in this guide.
- It is possible to use the present-tense version of the inventory at any time in the course; however, the items can be worded in the past tense when the inventory is administered near the end of a course. Both of these versions are presented on the following pages for the college version.
- Do not interpret any of the items for the students, they must make their own interpretation of the items. If they ask you what an item means, say something like: "Answer it based on whatever you think it means."
- Typically, responses have been collected on paper; however, it is possible to administer the inventory online. Studies have not been conducted to determine how the format of the items (online versus paper) affects students' responses. If you administer the inventory online, avoid displaying the numbers and labels in ways that present them as different distances apart because the distance between the items is assumed to be equal (e.g., the distance from 1 to 2 is assumed to be the same as the distance from 4 to 5 ). As an example, when spaced horizontally, avoid having the spacing width of the option for " $1=$ Strongly Disagree" larger than the width for the option for " 2 = Disagree" because there are more letters in the "Strongly Disagree" label. Make the column widths for the options the same. I recommend avoiding this issue by presenting the options vertically as shown here because the distance between the rows is equal.

$$
\begin{aligned}
& \text { The instructor is respectful of me. } \\
& \text { 1 = Strongly Disagree } \\
& 2=\text { Disagree } \\
& 3=\text { Somewhat Disagree } \\
& 4=\text { Somewhat Agree } \\
& 5=\text { Agree } \\
& 6=\text { Strongly Agree }
\end{aligned}
$$

- Hand out the directions on the following page (between the dashed lines) on one sheet of paper. You may have to modify the directions based on your circumstance. Read the directions aloud to the students then ask them to answer the "I like to eat pizza" item to ensure that they understand how to use the 6-point scale. After a few seconds, read the text below the pizza item and ask them if they have any questions. Next, collect these directions and hand out one of the versions of the MUSIC Inventory on the pages that follow. I do not hand out these two sheets at the same time because I do not want any students to start the inventory before I finish reading the directions.


## Validity Evidence

Several studies have provided validity evidence for the use of the middle/high school version of the MUSIC Inventory.

- Jones, Sahbaz, Schram, and Chittum (2017) and Chittum and Jones (2017) have provided validity evidence for the middle/high school version to be used with fifth-grade to seventhgrade students in science classes. In the Jones, Sahbaz, et al. (2017) study, Cronbach's alpha values were good (eMpowerment $\alpha=.72$; Usefulness $\alpha=.80$; Success $\alpha=.84$; Interest $\alpha=.77$; Caring $\alpha=.85$ ) and the fit indices produced from a one-factor measurement model were acceptable. In the Chittum and Jones (2017) study, Cronbach's alpha values were good and ranged from .72 to .85 for the five MUSIC Inventory scales over three samples; the fit indices produced from three different confirmatory factor analyses were acceptable.
- Parkes, Jones, and Wilkins (2017) have provided validity evidence for this version to be used with fifth-grade to twelfth-grade students in music and band ensemble classes. Cronbach's alpha values ranged from good to excellent (eMpowerment $\alpha=.73$; Usefulness $\alpha=.86$; Success $\alpha=.92$; Interest $\alpha=.91$; Caring $\alpha=.92$ ) and the fit indices produced from a confirmatory factor analysis were acceptable.
- The middle/high school version of the MUSIC Inventory was also translated to Icelandic and Schram and Jones (2016) provided validity evidence for its use with Icelandic middle school students in science classes. Chronbach's alpha values were as follows: empowerment $\alpha=$ .68 ; usefulness $\alpha=.87$; success; $\alpha=.83$; interest $\alpha=.86$; and caring $\alpha=.88$. They also conducted a confirmatory factor analysis and found that the data fit the model well.

The inventories are provided on the following pages.

## Directions

This is not a test and there are no right or wrong answers. We are only interested in your honest opinion. Your responses will remain confidential. This means that no one at your school will know how you answered these questions because your names will be removed from the questionnaire and your answers will be summarized with the answers of the other students in your school.

Some of the questions will seem similar to one another; however, it is important that you answer all of them to ensure that we completely understand your answers.

The questions ask you to select a number for your answer. Please select the number that best describes what you believe.

## Example Question 1

Please select one of the numbers from 1 to 6 below and write it in the space next to the question.

| 1 <br> Strongly <br> disagree | 2 <br> Disagree | 3 <br> Somewhat <br> disagree | 4 <br> Somewhat <br> agree | 5 <br> Agree | 6 <br> Strongly agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

$\qquad$ 1. I like to eat pizza.

For this question, you would select a " 6 " if you like to eat pizza a lot, you would select a " 1 " if you do not like pizza at all, or any number in between depending on how much you like pizza. What number would you choose if you liked pizza a little? Maybe a 2, or 3, or 4 . You can pick any number depending on how much you like pizza. You should answer the questions on the real survey using this same scale.

MUSIC Inventory (Middle/High School Student version, present tense)
(to be administered near the beginning or middle of a course, although it can be used at the end)
The inventories are provided on the following pages.

## Questions About Science Class

## Directions

## These items ask you about your current SCIENCE CLASS and SCIENCE TEACHER.

Please select one of the numbers from 1 to 6 below and write it in the space next to each question.

| 1 <br> Strongly <br> disagree | 2 <br> Disagree | 3 <br> Somewhat <br> disagree | 4 <br> Somewhat <br> agree | 5 <br> Agree | 6 <br> Strongly agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

$\qquad$ 1. The knowledge I gain in science class is important for my future.
$\qquad$ 2. I am confident that I can succeed in science class work.
$\qquad$ 3. My science teacher cares about how well I do in science class.
$\qquad$ 4. I am capable of getting a high grade in science class.
$\qquad$ 5. I have the freedom to complete my science class work in my own way.
$\qquad$ 6. The science class work is interesting to me.
7. I feel that I can be successful in meeting the academic challenges in science class.
$\qquad$ 8. I enjoy completing science class work.
$\qquad$ 9. In general, science class work is useful to me.
10. During science class, I feel that I can be successful on the class work.
11. My science teacher is friendly.
12. I have choices in what I am allowed to do in science class.
13. I find science class work to be relevant to my future.
14. My science teacher is willing to assist me if I need help in science class.
15. My science teacher is respectful of me.
16. I have control over how I learn the content in science class.
17. The science class work holds my attention.
18. I have options in how to achieve the goals in science class.

MUSIC Inventory (Middle/High School Student version, past tense)
(can be administered near the end of a course, or the present tense version can be used)

## Directions

These items ask you about your current SCIENCE CLASS and SCIENCE TEACHER.
Please select one of the numbers from 1 to 6 below and write it in the space next to each
question.

| 1 <br> Strongly <br> disagree | 2 <br> Disagree | 3 <br> Somewhat <br> disagree | 4 <br> Somewhat <br> agree | 5 <br> Agree | 6 <br> Strongly agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

$\qquad$ 1. The knowledge I gained in science class is important for my future.
$\qquad$ 2. I was confident that I could succeed in science class work.
$\qquad$ 3. My science teacher cared about how well I did in science class.
$\qquad$ 4. I was capable of getting a high grade in science class.
$\qquad$ 5. I had the freedom to complete my science class work in my own way.
$\qquad$ 6. The science class work was interesting to me.
$\qquad$ 7. I felt that I could be successful in meeting the academic challenges in science class.
$\qquad$ 8. I enjoyed completing science class work.
$\qquad$ 9. In general, science class work was useful to me.
$\qquad$ 10. During science class, I felt that I could be successful on the class work.
$\qquad$ 11. My science teacher was friendly.
$\qquad$ 12. I had choices in what I was allowed to do in science class.
13. I found science class work to be relevant to my future.
14. My science teacher was willing to assist me if I needed help in science class.
15. My science teacher was respectful of me.
16. I had control over how I learned the content in science class.
17. The science class work held my attention.
18. I had options in how to achieve the goals in science class.

# MUSIC Inventory (Middle/High School Student version, past tense) 

(to be administered near the end of an activity or lesson)

## Directions

These items ask you about the science activity you just finished and the teacher of the activity.

Please select one of the numbers from 1 to 6 below and write it in the space next to each question.

| 1 <br> Strongly <br> disagree2 <br> Disagree | 3 <br> Somewhat <br> disagree | 4 <br> Somewhat <br> agree | 5 <br> Agree | 6 <br> Strongly agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

$\qquad$ 1. The knowledge I gained in the activity is important for my future.
$\qquad$ 2. I was confident that I could succeed in the activity.
$\qquad$ 3. My teacher cared about how well I did in the activity.
$\qquad$ 4. I was capable of getting a high grade in the activity.
$\qquad$ 5. I had the freedom to complete the activity in my own way.
$\qquad$ 6. The activity was interesting to me.
$\qquad$ 7. I felt that I could be successful in meeting the challenges in the activity.
$\qquad$ 8. I enjoyed completing the activity.
$\qquad$ 9. In general, the activity was useful to me.
$\qquad$ 10. During the activity, I felt that I could be successful.
11. My teacher was friendly.
12. I had choices in what I was allowed to do in the activity.
13. I found the activity to be relevant to my future.
14. My teacher was willing to assist me if I needed help in the activity.
15. My teacher was respectful of me.
16. I had control over how I learned the content in the activity.
17. The activity held my attention.
$\qquad$ 18. I had options in how to achieve the goals in the activity.

## Instructions for Scoring the MUSIC Inventory (Middle/High School Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.
Empowerment score $=($ item $5+$ item $12+$ item $16+$ item 18) / 4
Usefulness score $=($ item $1+$ item $9+$ item 13) $/ 3$
Success score $=($ item $2+$ item $4+$ item $7+$ item 10) $/ 4$
Interest score $=($ item $6+$ item $8+$ item 17) $/ 3$
Caring score $=($ item $3+$ item $11+$ item $14+$ item 15) $/ 4$
Other important notes:

- Do not sum or average all 18 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.

| Scales | Items by Scale |
| :---: | :---: |
| Empowerment <br> (4 items) | - I have the freedom to complete my science class work in my own way. <br> - I have choices in what I am allowed to do in science class. <br> - I have control over how I learn the content in science class. <br> - I have options in how to achieve the goals in science class. |
| Usefulness (3 items) | - The knowledge I gain in science class is important for my future. <br> - In general, science class work is useful to me. <br> - I find science class work to be relevant to my future. |
| Success <br> (4 items) | - I am confident that I can succeed in science class work. <br> - I am capable of getting a high grade in science class. <br> - I feel that I can be successful in meeting the academic challenges in science class. <br> - During science class, I feel that I can be successful on the class work. |
| Interest (3 items) | - The science class work is interesting to me. <br> - I enjoy completing science class work. <br> - The science class work holds my attention. |
| Caring <br> (4 items) | - My science teacher cares about how well I do in science class. <br> - My science teacher is friendly. <br> - My science teacher is willing to assist me if I need help in science class. <br> - My science teacher is respectful of me. |

## MUSIC ${ }^{\circledR}$ Inventory (Elementary School Student version)

## Purpose

The purpose of the Elementary School Student version of the MUSIC Inventory is to measure the motivational climate by assessing the extent to which elementary school students perceive the presence of each of the MUSIC model components in an activity or assignment that they just completed that day. It can be used by teachers to help them identify areas of strengths and weaknesses related to factors that affect students' motivation and engagement.

Miranda Sigmon and I developed this version of the MUSIC Inventory by writing new items and adapting items from the College Student and Middle/High School version of the MUSIC Inventory.

## Instructions for Administering the Elementary School version of the MUSIC Inventory

- The items are worded in the past tense and ask about a specific assignment or activity.
- The inventory can be used after any assignment or activity in any subject area.
- Title the inventory as general as possible, such as "Questions About Class," and delete the text above the word "Directions" in the example on the following page. Titling the inventory as "motivation" or something similar could affect students' responses because of their preconceived notions of this word.
- Order the items randomly. The versions in this guide are already ordered randomly and can be used in the order shown. But if you administer the inventory online and your online survey software has the feature, I recommend that you have the software randomize the questions differently for each student.
- For the 1 to 4 rating scale, provide each number along with the associated description (e.g., 1 $=n o)$. The scale is presented correctly in this guide.
- Do not interpret any of the items for the students, they must make their own interpretation of the items. If they ask you what an item means, say something like: "Answer it based on whatever you think it means."
- Typically, responses have been collected on paper; however, it is possible to administer the inventory online.

Copy the directions on the next page (between the dashed lines) on one-half sheet of paper. Hand it out to students and read the directions aloud. Then read the questions below it to ensure that they understand how to answer the questions.

Next, collect these directions and hand out the elementary school version of the MUSIC Inventory that is on the following page. Do not hand out these two pieces of paper at the same time because students may start completing the inventory before they understand the directions.

## For first and second grade students:

- Read the directions and then read each item one at a time allowing time between for the students to write down their answer. Read each of the 15 items aloud to the students. You may read the items, but do not interpret them for students or make-up your own wording.


## For third, fourth, and fifth grade students:

- Read the directions aloud and then allow the students to read the items and select answers on their own.


## Validity Evidence

Jones and Sigmon (2016) provided validity evidence for the use of the elementary school version of the MUSIC Inventory with students in first to fifth grades. We surveyed 535 students and reported Cronbach's alpha values of .72 for empowerment, .71 for usefulness, .65 for success, .76 for interest, and .64 for caring. Results of confirmatory factor analysis produced fit indices within acceptable ranges.

The inventory is provided on the following pages.

## Directions

This is not a test and there are no right or wrong answers. We are only interested in your honest opinion. The questions ask you to pick a number about how you feel.

## Example Question 1

Please pick one of the numbers from 1 to 4 below and write it in the space next to the question.

| 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: |
| No | Maybe | Yes | Definitely, Yes! |

$\qquad$ 1. I like to eat pizza.

Read the following to students:
What number would you pick if you liked pizza a lot? Yes, a "4." What number would you pick if you did not like pizza at all? Yes, a "1". How about if you liked it a little? You could pick a "2" or a " 3 " depending on how much you liked it. Any questions about how to pick numbers about how you feel about the question?

## MUSIC Inventory (Elementary School Student version, past tense)

(to be administered near the end of an activity or assignment)

## Directions

Date: $\qquad$
These questions ask you about what you worked on today in this class (the teacher will tell you what it was). Please think about only this as you answer these questions. There are no right or wrong answers to these questions. Please pick one of the numbers from 1 to 4 below and write it in the blank next to the question.

| 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: |
| No | Maybe | Yes | Definitely, Yes! |

$\qquad$ 1. I was able to do a good job.
$\qquad$ 2. I liked what I did.
$\qquad$ 3. What I learned could help me in school.
$\qquad$ 4. I knew I could do well.
$\qquad$ 5. I could do it my way.
$\qquad$ 6. My teacher was helpful.
$\qquad$ 7. It was useful to me.
$\qquad$ 8. What I did was interesting.
$\qquad$ 9. My teacher cared about how well I did.
$\qquad$ 10. It was easy to do.
$\qquad$ 11. I made decisions.
$\qquad$ 12. What I did was fun.
$\qquad$ 13. I can use what I learned.
14. My teacher likes me.
15. I had choices.

## Instructions for Scoring the MUSIC Inventory (Elementary School Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.
Empowerment score $=($ item $5+$ item $11+$ item 15) $/ 3$
Usefulness score $=($ item $3+$ item $7+$ item 13) $/ 3$
Success score $=($ item $1+$ item $4+$ item 10) $/ 3$
Interest score $=($ item $2+$ item $8+$ item 12) $/ 3$
Caring score $=($ item $6+$ item $9+$ item 14) $/ 3$
Other important notes:

- Do not sum or average all 15 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.

| Scales | $\quad$ Items by Scale |
| :--- | :--- |
| Empowerment <br> (3 items) | - I could do it my way. <br> - I made decisions. <br> - I had choices. |
| Usefulness <br> (3 items) | - What I learned could help me in school. <br> - It was useful to me. <br> - I can use what I learned. |
| Success <br> (3 items) | - I was able to do a good job. <br> - I knew I could do well. <br> - It was easy to do. |
| Interest <br> (3 items) | - I liked what I did. <br> - What I did was interesting. |
| Caring <br> (3 items) | - What I did was fun. <br> - My teacher was helpful. <br> - My teacher cared about how well I did. |

# MUSIC ${ }^{\circledR}$ Inventory (Arabic translation of the College Student version) 

## Purpose

The purpose of the Arabic translation of the College Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Arabic. The initial translator for this version was Dr. Hanaa Ezzat Mohamed and it was back-translated by Mohamed Farouk. Brett Jones checked the English back-translation and it was acceptable.

## Instructions for Administering This Version

Please closely follow the instruction in the "Instructions for Administering the College Student version of the MUSIC Inventory" section of this document.

## Instructions for Scoring the MUSIC Inventory (College Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.
Empowerment score $=($ item $2+$ item $8+$ item $12+$ item $17+$ item 26) $/ 5$
Usefulness score $=($ item $3+$ item $5+$ item $19+$ item $21+$ item 23) $/ 5$
Success score $=($ item $7+$ item $10+$ item $14+$ item 18) $/ 4$
Interest score $=($ item $1+$ item $6+$ item $9+$ item $11+$ item $13+$ item 15) / 6
Caring score $=($ item $4+$ item $16+$ item $20+$ item $22+$ item $24+$ item 25) $/ 6$
Other important notes:

- Do not sum or average all 26 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.


## Validity Evidence

Mohamed, Soliman, and Jones (2013) provided validation evidence for an earlier edition of the translation of the MUSIC Inventory with students in Egypt. Since then, the translation has been updated to that provided on the following page. Validity evidence for this newer translation has been provided with students from Egypt by Jones, Khajavy, Li, Mohamed, and Reilly (2023).

The inventories are provided on the following pages.

العبارات التي تثير إلى كلمة المقرر المقصود به هذا المقرر ،والمقصود بالمحاضر هو المحاضر الرئيس لهذا المقرر، وكلمة "أعمال المقرر"
 -لا توجد إجابات صحيحه او خاطئة ، من فضلك أجب بأمانة وصدق .

| استخدم النقّبرات الآتية في تقييم العبارات التالية |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | 5 | 4 | 3 | 2 | 1 |
| او افق بشدة | أو افق | أوافق إلى حد ما | لا أو افق إلى حد ما | لا أو افق | لا أو افق بشدة |


| العبارة : | 「 |
| :---: | :---: |
| تجذب أعمال الهقرر انتباهي | . 1 |
| لاي الفرصة لأقرر كيف سأحقّ أهداف المقرر | . 2 |
| أعمال المقرر بصفة عامة مفيدة لي | . 3 |
| المحاضر متاح لكي يجيب عن أسلّالتي حول اعملى | . 4 |
| العمال المقرر نافعة لي | . 5 |
| تجذب طرق التنريس المستخدمة في هنا | . 6 |
| أنا واثق أنني أستطيع النجاح في ألعمال الكقرر | . 7 |
| لاي الحرية لإنجاز أعمال الحقر بطريقتي | . 8 |
|  | . 9 |
| أشعر أنني أستطيع النجاح في مواجهة التحديات الأكاديمية في ها لأها المقر | . 10 |
|  | . 11 |
| لدي اختيارات في كيفية تحقيق أهداف الف الحقر | . 12 |
| أستمتع بأداء أعمال الهقر | . 13 |
| أنا قادر على الحصول على تِّدير عاء عال في هنا | . 14 |
| أعمال المقرر شبقة بالنسبة لي | . 15 |
| اللحاضر على استعداد لمساعدتي إذا احتج | . 16 |
| أتحكم في كيفية تعلم محنىى المقرر | . 17 |
| خلال المقرر شعرت بأنني يككني ان اكون ناجحا في اعمال المقرر | . 18 |
|  | . 19 |
| يهتم المحاضر بمدى جودة أدائي في المقرر | . 20 |
| سيكون باستطاعتي استخدام المعارف التي اكتسبتها من المقرر | . 21 |
| يحترمني الهحاضر | . 22 |
| المعارف التي أكتبها في هذا لمقرر مهمة لمستقبلي | . 23 |
| الكحاضر ودود | . 24 |
| أعتقد أن المحاضر ير اعر | . 25 |
| لاي مرونة في ما هو مسموح لي علي فـله في المقر | . 26 |

# MUSIC ${ }^{\circledR}$ Inventory（Chinese translation of the College Student version） 

## Purpose

The purpose of the Chinese translation of the College Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Chinese．The initial translator for this version was Dr．Ming Li at Sias International University in China．The inventory is provided on the following page；and on the page after，there is a version that was modified slightly by Yufang Chu（朱玉仿）for use in Taiwan．

## Instructions for Administering This Version

Please closely follow the instruction in the＂Instructions for Administering the College Student version of the MUSIC Inventory＂section of this document．

## Instructions for Scoring the MUSIC Inventory（College Student version）

To obtain a score for each scale，average the values for the items in the scales as shown below．

```
Empowerment score = (item 2 + item 8 + item 12 + item 17 + item 26) / 5
Usefulness score = (item 3+item 5+ item 19+ item 21+item 23) / 5
Success score = (item 7 + item 10 + item 14 + item 18) / 4
Interest score = (item 1 + item 6 + item 9 + item 11 + item 13+ item 15) / 6
Caring score = (item 4 + item 16 + item 20 + item 22+item 24 + item 25) / 6
```


## Other important notes：

－Do not sum or average all 26 items because this produces a meaningless value．It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment，usefulness，success，interest，and caring．Although this may be true in some cases，it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others．

## Validity Evidence

The validity evidence for the use of the Chinese translation of this version of the MUSIC Inventory with college students is very good based on studies by Jones，Li，and Cruz（2017）and Jones， Khajavy，Li，Mohamed，and Reilly（2023）．For example，in sample of 300 undergraduate students， Jones，Li，and Cruz（2017）reported Cronbach＇s alpha values of .82 for empowerment， .89 for usefulness， .87 for success， .93 for interest，and .88 for caring．Confirmatory factor analysis showed that the five－factor model fit the data well，as demonstrated by acceptable fit indices．

The inventories are provided on the following pages．

你对本调查问卷中问题的回答，答案没有对错之分。我们感兴趣的是你的观点。请诚实回答本问卷的问题。你的答案将会保密，它们不会被你的任课老师看到，或者是被用来作为本课程期末成绩评判的一部分。

所有的问题中所提到的＂课程＂或是＂任课教师＂指本学期的《大学英语》这门课及大学英语任课老师。

## 请用以下量表来回答本部分问卷问题。

| 1 | 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 强烈不同意 | 不同意 | 有点儿不同意 | 4 <br> 有点儿同意 | 5 <br> 同意 | 6 <br> 强烈同意 |

请注意：这里＂这门课＂一词，指该门课程中你所做的任何事情，包括作业，活动，阅读资料等等。
$\qquad$ 1．这门课抓住我的注意力。
$\qquad$ 2．我自己有机会去决定如何达到课程目标。
$\qquad$ 3．总体来说，这门课对我是有用的。
$\qquad$ 4．任课老师能够回答我的有关这门课的问题。
$\qquad$ 5．我从这门课中受益。
$\qquad$ 6．这门课的教学方法能吸引我的注意力。
$\qquad$ 7．我有信心在这门课中取得成功。
$\qquad$ 8．我有自由以自己的方式去完成课程作业。
$\qquad$ 9．我很喜爱这门课程中的教学方法。
$\qquad$ 10．我感觉我能够成功地达到这门课的学业目标。
＿11．这门课的教学方法让我积极参与其中。
$\qquad$ 12．我有选择权如何达到该课程目标。
$\qquad$ 13．我很开心去完成该课程各项作业。
$\qquad$ 14．我有能力在这门课程中获得高分。
15．这门课对我来讲很有趣。
16．在我需要的时候，这门课的老师很乐意帮助我。
17．我能掌控如何学习本课程的内容。
18．总观整个课程，我已经觉得我能在这门课中取得成功。
19．我发现这门课和我的未来密切相关。

20．老师关注我在这门课程中的学习状况。
21．我将来能够运用我在这门课中所学到的知识。
22．任课老师尊重我。
23．这门课学到的知识对我的未来很重要。
24．任课老师很友好。
25．我相信任课老师关注我的感受。
26．我有灵活性来完成这门课所允许我做的事情。

## MUSIC學業動機問卷大學學生繁體中文版

你對本調查問卷中問題的回答，答案没有鋀錯之分。我們感興趣的是你的觀點。請誠實回答本問卷的問題。你的答案將會保密，它們不會被用來作為本課程期末成績評判的一部分。所有問題中所提到的＂課程＂或是＂任課教師＂是指本學期《創意思考》這門課及創意思考任課老師。請用以下量表來回答問卷問題。

| 1 | 2 | 3 | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 非常不同意 | 不同意 | 有點不同意 | 有點同意 | 5 <br> 同意 | 6 <br> 非常同意 |

請注意：這裡＂這門課＂一詞，指該門課程中你所做的任何事情，包括作業，活動，閲讀資料等等。
$\qquad$ 1．這門課抓住我的注意力。
$\qquad$ 2．我自己有機會去決定如何達到課程目標。
3．總體來說，這門課對我是有用的。
4．任課老師能够回答我有關這門課的問題。
$\qquad$ 5．我從這門課中受益。
$\qquad$ 6．這門課的教學方法能吸引我的注意力。
$\qquad$ 7．我有信心在這門課中取得成功。
$\qquad$ 8．我有自由以自己的方式去完成課程作業。
9．我很喜愛這門課程中的教學方法。
$\qquad$ 10．我感覺我能夠成功地達到這門課的學業目標。
$\qquad$ 11．這門課的教學方法讓我積極參與其中。
$\qquad$ 12．我有選擇權如何達到該課程目標。
$\qquad$ 13．我很開心去完成該課程各項作業。
$\qquad$ 14．我有能力在這門課程中獲得高分。
$\qquad$ 15．這門課對我來講很有趣。
$\qquad$ 16．在我需要的時候，這門課的老師很樂意幫助我。
$\qquad$ 17．我能掌控如何學習本課程的内容。
18．總觀整個課程，我已經覺得我能在這門課中取得成功。
$\qquad$ 19．我發現這門課和我的未來密切相關。
$\qquad$ 20．老師關注我在這門課程中的學習狀況。
21．我將來能够運用我在這門課中所學到的知臷。
22．任課老師尊重我。
23．這門課學到的知識對我的未來很重要。
24．任課老師很友好。
25．我相信任課老師關注我的感受。
26．我有彈性自主的來完成這門課允許我做的事情。

## MUSIC ${ }^{\circledR}$ Inventory (Dutch translation of the College Student version, present tense)

## Purpose

The purpose of the Dutch translation of the College Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Dutch. The initial translator for this version was Dr. Anneke van Houwelingen (Utrecht University in Utrecht, the Netherlands). The translation was back-translated to English by Kirsten Szklany and Martina O'Flaherty and checked by Brett Jones, which resulted in minor edits to five of the items.

## Instructions for Administering This Version

Please closely follow the instructions in the "Instructions for Administering the College Student version of the MUSIC Inventory" section of this document for how to administer and format the items.

## Instructions for Scoring the MUSIC Inventory (College Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.

$$
\begin{aligned}
& \text { Empowerment score }=(\text { item } 2+\text { item } 8+\text { item } 12+\text { item } 17+\text { item 26) } / 5 \\
& \text { Usefulness score }=(\text { item } 3+\text { item } 5+\text { item } 19+\text { item } 21+\text { item 23) } / 5 \\
& \text { Success score }=(\text { (item } 7+\text { item } 10+\text { item } 14+\text { item 18) } / 4 \\
& \text { Interest score }=(\text { item } 1+\text { item } 6+\text { item } 9+\text { item } 11+\text { item } 13+\text { item 15) } / 6 \\
& \text { Caring score }=(\text { item } 4+\text { item } 16+\text { item } 20+\text { item } 22+\text { item } 24+\text { item 25) } / 6
\end{aligned}
$$

## Other important notes:

- Do not sum or average all 26 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.


## Validity Evidence

We do not yet have any validity evidence for the translation other than the evidence for the English version with college students.

| English - College version, present tense | Translation to Dutch |
| :---: | :---: |
| Instructions | Instructie |
| The items that refer to a course or instructor refer to this course and your primary instructor | De vragen die betrekking hebben op een cursus of een docent hebben betrekking op deze cursus en jouw docent |
| Please rate the items in this section using the following scale: <br> 1 = Strongly disagree <br> 2 = Disagree <br> 3 = Somewhat disagree <br> 4 = Somewhat agree <br> 5 = Agree <br> 6 = Strongly agree | Beoordeel de stellingen aan de hand van de volgende indeling <br> 1 = helemaal oneens <br> 2 = oneens <br> 3 = een beetje oneens <br> 4 = een beetje mee eens <br> $5=$ mee eens <br> $6=$ helemaal mee eens. |
| Note that the word "coursework" refers to anything that you do in the course, including assignments, activities, readings, etc. | Het woord 'onderwijsactiviteit' heeft betrekking op alles wat je in de cursus gedaan hebt, dus alle activiteiten, opdrachten, leeswerk, werkcolleges etc. |
| There are no right or wrong answers to these questions. Please answer them honestly. Some of the questions might seem repetitive, but it is important that you answer tham all to obtain the best possible results. | Er zijn geen goede of foute antwoorden. Beantwoord de stelling zo eerlijk mogelijk, Sommige stellingen lijken wellicht sterk op elkaar maar het is belangrijk om alle stellingen te beantwoorden om zodoende een optimaal resultaat te bereiken |
| 1. The coursework holds my attention. | 1. De gebruikte onderwijsactiviteiten houden afdoende mijn aandacht vast. |
| 2. I have the opportunity to decide for myself how to meet the course goals. | 2. Ik kan zelf bepalen hoe ik de cursusdoelen kan bereiken. |
| 3. In general, the coursework is useful to me. | 3. Over het algemeen genomen is de cursus nuttig voor mij. |
| 4. The instructor is available to answer my questions about the coursework. | 4. De docent is bereid om mijn vragen over de leerstof te beantwoorden. |
| 5. The coursework is beneficial to me. | 5. De cursus was nuttig voor mij. |
| 6. The instructional methods used in this course hold my attention. | 6. De in de cursus gebruikte onderwijsmethoden weten mijn aandacht vast te houden. |
| 7. I am confident that I can succeed in the coursework. | 7. Ik vertrouw erop dat ik de cursus succesvol kan afronden. |
| 8. I have the freedom to complete the coursework my own way. | 8. Ik heb de vrijheid om de cursus te volbrengen hoe ik dat wilde. |
| 9. I enjoy the instructional methods used in this course. | 9. De gebruikte onderwijsvormen zijn prettig (leuk). |
| 10. I feel that I can be successful in meeting the academic challenges in this course. | 10. Ik heb het gevoel dat ik de academische uitdagingen binnen de cursus aan kan. |
| 11. The instructional methods engage me in the course. | 11. De gebruikte onderwijsvormen betrekken mij bij de cursus. |


| 12. I have options in how to achieve the goals of <br> the course. | 12. Ik had de vrijheid om te bepalen hoe ik de <br> cursusdoelen kon bereiken. |
| :--- | :--- |
| 13. I enjoy completing the coursework. | 13. Ik vind het leuk om aan de cursusopdrachten <br> te werken. |
| 14. I am capable of getting a high grade in this <br> course. | 14. Ik ben in staat om een hoog cijfer te behalen <br> voor deze cursus. |
| 15. The coursework is interesting to me. | 15. De onderwijsactiviteiten zijn voor mij <br> interessant. |
| 16. The instructor is willing to assist me if I need <br> help in the course. | 16. De docent is behulpzaam als ik aangeef hulp <br> nodig te hebben. |
| 17. I have control over how I learn the course <br> content. | 17. Ik kan zelf bepalen hoe ik de leerstof <br> bestudeerde. |
| 18. Throughout the course, I have felt that I <br> could be successful on the coursework. | 18. Ik voel dat ik succesvol ben in de <br> onderwijsactiviteiten. |
| 19. I find the coursework to be relevant to my <br> future. | 19. Ik vind de gebruikte onderwijsactiviteiten <br> relevant voor mijn toekomst. |
| 20. The instructor cares about how well I do in <br> this course. | 20. De docent is betrokken bij mijn voortgang in <br> de cursus. |
| 21. I will be able to use the knowledge I gain in <br> this course. | $21 . ~ I k ~ k a n ~ d e ~ k e n n i s ~ d i e ~ i k ~ h e b ~ o p g e d a a n ~ t i j d e n s ~$ <br> cursus goed kunnen gebruiken. |
| 22. The instructor is respectful of me. | 22. De docent behandelt mij met respect. |
| 23. The knowledge I gain in this course is <br> important for my future. | 23. De kennis die ik heb opgedaan gedurende de <br> cursus is belangrijk voor mijn toekomst. |
| 24. The instructor is friendly. | 24. De docent is vriendelijk. |
| 25. I believe that the instructor cares about my <br> feelings. | 25. Ik denk dat de docent rekening houdt met mij. |
| 26. I have flexibility in what I am allowed to do in <br> this course. | 26. Binnen de grenzen van de cursus heb ik de <br> vrijheid om te doen wat ik wil. |

## MUSIC ${ }^{\circledR}$ Inventory (Farsi/Persian translation of the College Student version)

## Purpose

The purpose of the Farsi translation of the College Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Farsi. The initial translators for this version were Farzaneh Mikaeli Manee and Elham Salehi at Urmia University in Iran. The translation was backtranslated to English by Dr. Shabnam Kavousi and checked by Brett Jones, which resulted in a minor edit to one of the items. Other minor edits were then made by Dr. Hassan Khajavy at the University of Bojnord in Iran.

## Instructions for Administering This Version

Please closely follow the instruction in the "Instructions for Administering the College Student version of the MUSIC Inventory" section of this document.

## Instructions for Scoring the MUSIC Inventory (College Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.

$$
\begin{aligned}
& \text { Empowerment score }=(\text { item } 2+\text { item } 8+\text { item } 12+\text { item } 17+\text { item 26) } / 5 \\
& \text { Usefulness score }=(\text { (item } 3+\text { item } 5+\text { item } 19+\text { item } 21+\text { item 23) } / 5 \\
& \text { Success score }=(\text { (item } 7+\text { item } 10+\text { item } 14+\text { item 18) } / 4 \\
& \text { Interest score }=(\text { item } 1+\text { item } 6+\text { item } 9+\text { item } 11+\text { item } 13+\text { item 15) } / 6 \\
& \text { Caring score }=(\text { item } 4+\text { item } 16+\text { item } 20+\text { item } 22+\text { item } 24+\text { item 25) } / 6
\end{aligned}
$$

## Other important notes:

- Do not sum or average all 26 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.


## Validity Evidence

Farzaneh Mikaeli Manee at Urmia University in Iran has conducted a study with this version and the preliminary evidence suggests that the translation is acceptable. Validity evidence for this newer translation has been provided with students in Iran by Jones, Khajavy, Li, Mohamed, and Reilly (2023).

The inventory is provided on the following pages.

سوالاتى كه به درس يا استاد اشاره مى كند، منظور اين درس و استاد اين درس است. وازه "فعاليت درسى" به هر جپِیى كه شما در اين
 ندارد. خواهشمند است با صداقت پاسخ دهيا.

## لطفا اين سوالات را با استفاده از مقياس زير ارزيابى كنيا.

| $\begin{gathered} 6 \\ \text { كاملا مو افق } \end{gathered}$ | $\begin{gathered} 5 \\ \text { مو افق } \end{gathered}$ | $4$ <br> تا حدودى مو افق | $\begin{gathered} 3 \\ \text { تاحدودى مخال } \end{gathered}$ | $\text { مخالف } 2$ | $\text { كاملا مخالف } 1$ |
| :---: | :---: | :---: | :---: | :---: | :---: |

1- فعاليت هاى درسى توجه من را جلب ميكنـ. $\qquad$
2- فرصت اين را دارم كه درمورد جگگونگى رسيدن به اهداف درس تصميم بگیِم. $\qquad$
3- به طور كلى، ترم برای من مفيد است. $\qquad$
4- مربى برای پاسخڭويى به سوالات من در مورد فعاليت هاى درسى حضور دارد (در دسترس است) $\qquad$ 5- فعاليت هاى درسى براى من سودمند است. $\qquad$
6- روشهاى آموزشى مورد استفاده در اين درس توجه مرا جلب ميكند. $\qquad$
7-مطمئن هستم كه مى توانم در فعايت هاى درسى موفق باشي
 $\qquad$ 9-از روش هاى آموزشى مورد استفاده در اين دوره لذت مى برم. $\qquad$
 $\qquad$
 12- در مورد چگگونگى رسيدن به اهداف اين دورهه، اختيار اتى دارم. 13- ال از تكميل فعاليت هاى درسى لذت مى بر برم. $\qquad$ 14- قادر به كرفتن نمره بالا در اين درس هستم. $\qquad$
15-15 فعاليت هاى درسى بر ای من جالب هس هستنت. $\qquad$
 $\qquad$
 $\qquad$
 $\qquad$
19- فعاليت هاى درسى اين كاس بر بر آينده ام تاثيركذار خواهد بر بود. $\qquad$
20-استاد بر نحوه ى عمكرد من در كاس اهيت ميت ميدهد. $\qquad$
21- قادر به استفاده از دانشى كه در اين ترم به دست آورده ام ام خو اهم بود. $\qquad$
22- 21- استاد برایى من قابل احترام است.
$\qquad$
$\qquad$
23- دانشى كه در اين درس به دست مى آورم براى آينده ام اهميت دارد. $\qquad$
24- استاد مهربان است. $\qquad$
25- معتقدا كه استاد به احسانسات من اهميت مى دهد. $\qquad$
$\qquad$

# MUSIC ${ }^{\circledR}$ Inventory (Farsi translation of the Middle/High School Student version) 

## Purpose

The purpose of the Farsi translation of the Middle/High School Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Farsi. The initial translator for this version was Behrouz Atashrouz in Iran. The translation was back-translated to English by Dr. Shabnam Kavousi and checked by Brett Jones, which resulted in a minor edit to one of the items. The English items on the following pages are not the back-translations; rather, they are the original English items.

## Instructions for Administering This Version

Please closely follow the instruction in the "Instructions for Administering the Middle/High School version of the MUSIC Inventory" section of this document.

## Instructions for Scoring the MUSIC Inventory (Middle/High School Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.

```
Empowerment score = (item 5 + item 12 + item 16 + item 18) / 4
Usefulness score = (item 1+ item 9 + item 13)/ 3
Success score = (item 2+item 4 + item 7 + item 10)/4
Interest score = (item 6 + item 8 + item 17) / 3
Caring score =(item 3+item 11 + item 14 + item 15)/4
```


## Other important notes:

- Do not sum or average all 18 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.


## Validity Evidence

Behrouz Atashrouz is using this version of the MUSIC Inventory in Iran. This research is ongoing and will be published soon. Because it is a direct translation of the English version of the MUSIC Inventory, it is likely that this version will demonstrate acceptable validity as well.

The inventory is provided on the following pages.

## MUSIC Inventory (Middle/High School Student version) 

سوال نمونه 1
لطفا يكى از شماره 1 تا 6 را انتخاب كرده و در آن را در فضـاى خالى كنار سوال بنويسبد.

. 1








ر




| 1 | 2 | 3 | 4 | 5 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Strongly disagree | Disagree | Somewhat disagree | Somewhat agree | Agree | Strongly agree |
|  | مخالفم | تا حدودى مخالفم | تا حدودى مو افقم | مو افقم | كاملا مو افقح |


| 1. The knowledge I gain in science class is important for my future. |  هـ آورم بـر ای آيـنــه مـن اهمـيـت . 2 رد |
| :---: | :---: |
| 2. I am confident that I can succeed in science class work. | 2.2 مـطمـئن هستم كــه مـى تـو انـم در ر <br>  |
| $\qquad$ 3. My science teacher cares about how well do in science class. |  عمـــــرد مـن در كـالاس عـــوم اهـمـيـت <br>  |
| 4. I am capable of getting a high grade in science class. | 4 بـالا (نــمـره بــالا) در كـلاس عـــوم . هستم |
| 5. I have the freedom to complete my science class work in my own way. |  كــاسى بــه روش شـر شخصى خـودم آز ادی عمـل د د ارم |
| 6. The science class work is interesting to me. |  <br>  |
| 7. I feel that I can be successful in meeting the academic challenges in science class. | 7. 7 بــه طور مـوفــــيـت آمـيـزى بــا <br>  <br>  |
| 8. I enjoy completing science class work. | 8. 8 <br>  |
| 9. In general, science class work is useful to me. |  <br>  |
| 10. During science class, I feel that I can be successful on the class work. |  <br>  <br>  |
| 11. My science teacher is friendly. | 11.مـعـلم عـلـوم مـن خـيـلـى مـهـربـانـان است |
| 12. I have choices in what I am allowed to do in science class. |  |
| 13. I find science class work to be relevant to my future. | 13. مـن دريــافـتـه ام كــه فـعـا بــــــت <br>  تـا ثـــــر كــنـا ار خـو اهــد بــود. |


| 14. My science teacher is willing to assist me if I need help in science class. | 14 <br>  . |
| :---: | :---: |
| 15. My science teacher is respectful of me. | 15 معلم علوم براى من احترا ما |
| 16. I have control over how I learn the content in science class. |  <br> - درس عـلـوم كــــتـرل دا دارم |
| 17. The science class work holds my attention. |  <br>  |
| 18. I have options in how to achieve the goals in science class. |  <br>  |

## MUSIC ${ }^{\circledR}$ Inventory (Finnish translation of the College Student version)

## Purpose

The purpose of the Finnish translation of the College Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Finnish. The individuals who were involved in the translation process for this version were Eija Piippo-Savolainen, Mira Savolainen, Pekka Arikoski, Liisa Kröger, Anna Hatunen, and Marko Tolonen (University of Eastern Finland). The back-translation was checked by Brett Jones.

## Instructions for Administering This Version

Please closely follow the instruction in the "Instructions for Administering the College Student version of the MUSIC Inventory" section of this document.

## Instructions for Scoring the MUSIC Inventory (College Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.

```
Empowerment score = (item 5 + item 9 + item 14 + item 19) / 4
Usefulness score = (item 1+ item 10 + item 16 + item 18)/4
Success score = (item 2+ item 7 + item 11 + item 15)/4
Interest score = (item 3+ item 6 + item 12) / 3
Caring score = (item 4 + item 8 + item 13 + item 17)/4
```


## Other important notes:

- Do not sum or average all 26 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.


## Validity Evidence

No studies have been conducted to assess the validity evidence for this Finnish translation. However, it can be used for teaching purposes. If you conduct research and collect validity evidence with this version, please contact Brett Jones and he will report your findings here.

The inventory is provided on the following pages.

## MUSIC Inventory, Finnish translation (College Student version, present tense)

| English - College version, present tense | Translation to Finnish |
| :---: | :---: |
| Instructions | Ohjeet |
| The items that refer to a course or instructor refer to this course and your primary instructor | Kohdat, joissa viitataan kurssiin tai ohjaajaan, viittaavat tähän kurssiin ja ensisijaiseen ohjaajaan |
| Please rate the items in this section using the following scale: <br> Strongly disagree <br> Disagree <br> Somewhat disagree <br> Somewhat agree <br> Agree <br> Strongly agree | Arvio seuraavan osion kohdat käyttäen seuraavaa asteikkoa: <br> Vahvasti eri mieltä <br> Eri mieltä <br> Osittain eri mieltä <br> Osittain samaa mieltä <br> Samaa mieltä <br> Vahvasti samaa mieltä |
| Note that the word "coursework" refers to anything that you do in the course, including assignments, activities, readings, etc. | Huomio, että "opintojakso" viittaavat kaikkeen mitä teit kurssilla: tehtävät, aktiviteetit, aineistot jne. |
| There are no right or wrong answers to these questions. Please answer them honestly. Some of the questions might seem repetitive, but it is important that you answer tham all to obtain the best possible results. | Kysymyksiin ei ole olemassa oikeita eikä vääriä vastauksia. Vastaa siis rehellisesti. Kysymykset saattavat toistua, mutta parhaan tuloksen saavuttamiseksi on tärkeää, että vastaat jokaiseen kysymykseen. |
| 1. The coursework is beneficial to me. | 1. Opintojakson sisällöstä on minulle hyötyä. |
| 2. I am confident that I can succeed in the coursework. | 2. Opintojaksolla on mahdollista onnistua. |
| 3. The instructional methods used in this course hold my attention. | 3. Opetusmenetelmät auttoivat minua keskittymään/pitämään kiinnostustani yllä. |
| 4. The instructor is friendly. | 4. Opettaja(t) on ystävällinen. |
| 5. I have the freedom to complete the coursework my own way. | 5. Voin tehdä opintojakson joustavasti minulle sopivalla tavalla. |
| 6. I enjoy the instructional methods used in this course. | 6. Opintojakson opetusmenetelmät ovat mielekkäitä/miellyttäviä. |
| 7. I feel that I can be successful in meeting the academic challenges in this course. | 7. Koen, että voin onnistua opintojaksolla silloinkin, kun kohtaan haasteita. |
| 8. The instructor is respectful of me. | 8. Opintojakson opettaja on kunnioittava minua kohtaan. |
| 9. I have options in how to achieve the goals of the course. | 9. Minulla on erilaisia vaihtoehtoja, joilla voin saavuttaa opintojakson tavoitteet. |
| 10. In general, the coursework is useful to me. | 10. Opintojaksolla opitut ja tehdyt asiat ovat käyttökelpoisia. |
| 11. I am capable of getting a high grade in this course. | 11. Minun on mahdollista saada hyvä arvosana opintojaksosta. |
| 12. The instructional methods engage me in the course. | 12. Opetusmenetelmät auttavat minua osallistumaan opintojaksolle. |
| 13. The instructor is willing to assist me if I need help in the course. | 13. Saan opettajalta apua aina sitä tarvitessani. |
| 14. I have control over how I learn the course content. | 14. Voin hyödyntää itselle parasta tapaa oppia opintojakson aikana. |
| 15. Throughout the course, I have felt that I could be successful on the coursework. | 15. Olen kokenut opintojakson aikana, että voin onnistua sen eri tehtävissä. |


| 16. I find the coursework to be relevant to my <br> future. | 16. Opintojakso sisältää minulle olennaista tietoa <br> tulevaisuuden kannalta. |
| :--- | :--- |
| 17. The instructor cares about how well I do in | 17. Opettaja välittää siitä, miten |
| this course. | suoriudun/onnistun opintojaksolla |
| 18. The knowledge I gain in this course is | 18. Opintojaksolta saamani tieto on minulle <br> important for my future. |
| 19̈rkeää tulevaisuudessa. I have flexibility in what I am allowed to do in <br> this course. | 19. Opintojaksolla on joustavuutta sen suhteen, <br> mitä voin/saan tehdä sen aikana. |

## MUSIC® ${ }^{\circledR}$ Inventory (French translation of the College Student version)

## Purpose

The purpose of the French translation of the College Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak French. The translator for this version was Dr. Jonathan Piard (ENS Paris-Scalay, France). The translation was back-translated to English by Rebecca Jones and checked by Brett Jones.

## Instructions for Administering This Version

Please closely follow the instruction in the "Instructions for Administering the College Student version of the MUSIC Inventory" section of this document.

## Instructions for Scoring the MUSIC Inventory (College Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.

> Empowerment score $=($ item $2+$ item $8+$ item $12+$ item $17+$ item 26) $/ 5$
> Usefulness score $=($ item $3+$ item $5+$ item $19+$ item $21+$ item 23) $/ 5$
> Success score $=($ (item $7+$ item $10+$ item $14+$ item 18) $/ 4$
> Interest score $=($ item $1+$ item $6+$ item $9+$ item $11+$ item $13+$ item 15) $/ 6$
> Caring score $=($ item $4+$ item $16+$ item $20+$ item $22+$ item $24+$ item 25) $/ 6$

## Other important notes:

- Do not sum or average all 26 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.


## Validity Evidence

No studies have been conducted to assess the validity evidence for this French translation. However, it can be used for teaching purposes. If you conduct research and collect validity evidence with this version, please contact Brett Jones and he will report your findings here.

The inventory is provided on the following pages.

## MUSIC Inventory, French translation (College Student version, past tense)

Veuillez évaluer les éléments de cette section en utilisant l'échelle suivante:

| 1 | 2 | 3 | 4 | 5 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pas du tout <br> d'accord | Pas <br> d'accord | Plutôt pas <br> d'accord | Plutôt <br> d'accord | D'accord | Tout à fait <br> d'accord |

Notez que le mot «cours» fait référence à tous les formats pédagogiques ayant eu lieu que cela soit les cours magistraux, les cours interactifs, les travaux dirigés, les devoirs etc.
$\qquad$ 1. Les cours ont retenu mon attention.
$\qquad$ 2. J'ai eu l'occasion de décider moi-même comment atteindre les objectifs du cours.
$\qquad$ 3. En général, les cours m'ont été utiles.
$\qquad$ 4. L'enseignant• ou l'encadrant•e était disponible pour répondre à mes questions sur le cours.
$\qquad$ 5. Le cours m'a été bénéfique.
$\qquad$ 6. Les méthodes pédagogiques utilisées dans ce cours ont retenu mon attention.
$\qquad$ 7. J'étais convaincu•e que je pouvais réussir les cours.
$\qquad$ 8. J'avais la liberté de suivre les cours à ma manière.
$\qquad$ 9. J'ai apprécié les méthodes pédagogiques utilisées dans ce cours.
$\qquad$ 10. J'ai senti que je pouvais réussir à relever les défis académiques de ce cours.
$\qquad$ 11. Les méthodes pédagogiques m'ont engagé dans le cours.
$\qquad$ 12. J'avais plusieurs options pour atteindre les objectifs du cours.
$\qquad$ 13. J'ai aimé participé aux cours.
$\qquad$ 14. Je me sentais capable d'obtenir une note élevée dans ce cours.
$\qquad$ 15. Le cours m'intéressait.
$\qquad$ 16. L'enseignant•e était prêt•e à m'aider si j'avais besoin d'aide pendant le cours.
$\qquad$ 17. Je contrôlais ma façon d'apprendre le contenu du cours.
$\qquad$ 18. Tout au long du cours, j'ai senti que je pouvais atteindre les objectifs pour ce cours.
$\qquad$ 19. J'ai trouvé que les cours étaient pertinents pour mon avenir.
$\qquad$ 20. Les enseignant.es se souciaient de ma réussite dans ce cours.
$\qquad$ 21. Je pourrai utiliser les connaissances/compétences que j'ai acquises dans ce cours.
$\qquad$ 22. L'enseignat.e était respectueux de moi.
$\qquad$ 23. Les connaissances/compétences que j'ai acquises dans ce cours sont importantes pour mon avenir.
24. L'enseignant•e était sympathique.
25. Je crois que l'enseignant-e se souciait de mes sentiments.
26. J'avais de la flexibilité dans ce que j'étais autorisé à faire dans ce cours.

# MUSIC ${ }^{\circledR}$ Inventory (French translation of the Middle/High School version for a Class Activity) 

## Purpose

The purpose of the French translation of the Middle/High School version of the MUSIC Inventory for a Class Activity is to assess students' perceptions of a specific class activity. The translator for this version was Dr. Jonathan Piard (ENS Paris-Scalay, France). The translation was back-translated to English by Rebecca Jones and checked by Brett Jones.

## Instructions for Administering This Version

Please closely follow the instruction in the "Instructions for Administering the Middle/High School version of the MUSIC Inventory" section of this document. This version asks students about their perceptions for a specific class activity; therefore, the instructions should tell students exactly which activity it refers to. For example, "The following questions ask you about the plant activity you completed today during class." Or, "The following questions ask you about the activity related to Section 2.4 (Photosynthesis) that you completed over the past week."

The word "activity" (activité) can be replaced with the name of a class (science class or math class) if the purpose is to assess students' perceptions of a class more generally. The English version of the Middle/High School version is already worded in this manner.

Note that we have not translated the practice instructions (those that include the practice pizza item). If you want to use this inventory for middle or high school, please contact Brett Jones (brettdjones@gmail.com) to discuss how to best present the instructions.

## Instructions for Scoring the MUSIC Inventory (Middle/High School Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.
Empowerment score $=($ item $5+$ item $12+$ item $16+$ item 18) / 4
Usefulness score $=($ item $1+$ item $9+$ item 13) $/ 3$
Success score $=($ item $2+$ item $4+$ item $7+$ item 10) $/ 4$
Interest score $=($ item $6+$ item $8+$ item 17 $) / 3$
Caring score $=($ item $3+$ item $11+$ item $14+$ item 15) $/ 4$
Other important notes:

- Do not sum or average all 18 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.


## Validity Evidence

No studies have been conducted to assess the validity evidence for this French translation. However, it can be used for teaching purposes. If you conduct research and collect validity evidence with this version, please contact Brett Jones and he will report your findings here.

The inventory is provided on the following pages.

## MUSIC Inventory, French translation (Middle/High School version, past tense)

For a Class Activity
Veuillez évaluer les éléments de cette section en utilisant l'échelle suivante :

| 1 | 2 | 3 | 4 | 5 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pas du <br> tout <br> d'accord | Pas <br> d'accord | Plutôt pas <br> d'accord | Plutôt <br> d'accord | D'accord | Tout à fait <br> d'accord |

$\qquad$ 1. Les connaissances/compétences que j'ai acquises durant cette activité sont importantes pour mon avenir.
$\qquad$ 2. J'étais convaincu que je pourrais réussir cette activité.
$\qquad$ 3. Les enseignant es se souciaient de ma réussite lors de cette activité.
$\qquad$ 4. Je me sentais capable d'obtenir une note élevée pour cette activité.
$\qquad$ 5. J'avais la liberté de réaliser cette activité à ma manière.
$\qquad$ 6. Cette activité m'a intéressée.
$\qquad$ 7. J'ai senti que je pouvais réussir à relever les défis de cette activité.
$\qquad$ 8. J'ai aimé suivre/participer à cette activité.
$\qquad$ 9. De manière générale, cette activité m'a été utile.
$\qquad$ 10. Pendant cette activité, j'ai senti que je pouvais réussir.
$\qquad$ 11. Les enseignant-es étaient sympathiques.
$\qquad$ 12. J'avais le choix de ce que j'étais autorisé à faire dans cette activité.
$\qquad$ 13. J'ai trouvé cette activité pertinente pour mon avenir.
$\qquad$ 14. Les enseignant•es étaient prêt.es à m'aider si j'avais besoin d'aide durant cette activité.
$\qquad$ 15. Les enseignant-es me respectaient.
$\qquad$ 16. J'avais le contrôle sur la façon d'apprendre le contenu de cette activité.
$\qquad$ 17. Cette activité a retenu mon attention.
$\qquad$ 18. J'avais plusieurs options pour atteindre les objectifs de cette activité.

## MUSIC ${ }^{\circledR}$ Inventory (German translation of the College Student version)

## Purpose

The purpose of the German translation of the College Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak German. The translator for this version was Dr. Stephan Munz. The translation was back-translated to English by Rebecca Reuter and checked by Brett Jones. The English items on the following pages are not the back-translations; rather, they are the original English items.

## Instructions for Administering This Version

Please closely follow the instruction in the "Instructions for Administering the College Student version of the MUSIC Inventory" section of this document.

## Instructions for Scoring the MUSIC Inventory (College Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.

$$
\begin{aligned}
& \text { Empowerment score }=(\text { item } 2+\text { item } 8+\text { item } 12+\text { item } 17+\text { item 26) } / 5 \\
& \text { Usefulness score }=(\text { item } 3+\text { item } 5+\text { item } 19+\text { item } 21+\text { item 23) } / 5 \\
& \text { Success score }=(\text { (item } 7+\text { item } 10+\text { item } 14+\text { item 18) } / 4 \\
& \text { Interest score }=(\text { item } 1+\text { item } 6+\text { item } 9+\text { item } 11+\text { item } 13+\text { item 15) } / 6 \\
& \text { Caring score }=(\text { item } 4+\text { item } 16+\text { item } 20+\text { item } 22+\text { item } 24+\text { item 25) } / 6
\end{aligned}
$$

## Other important notes:

- Do not sum or average all 26 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.


## Validity Evidence

No studies have been conducted to assess the validity evidence for this German translation. However, it can be used for teaching purposes. If you conduct research and collect validity evidence with this version, please contact Brett Jones and he will report your findings here.

The inventory is provided on the following pages.

| English - College version, present tense | Translation to German |
| :---: | :---: |
| Instructions | Anleitung |
| The items that refer to a course or instructor refer to this course and your primary instructor | Alle Fragen bezüglich des Kurses oder Lehrers beziehen sich auf Ihren Kurs und Ihren primären Lehrer. <br> Alle Fragen beziehen sich nur auf Ihren Kurs und dafür zuständigen Lehrer. |
| Please rate the items in this section using the following scale: <br> 1 = Strongly disagree <br> 2 = Disagree <br> 3 = Somewhat disagree <br> 4 = Somewhat agree <br> 5 = Agree <br> 6 = Strongly agree | Bitte bewerten Sie die Fragen in diesem Abschnitt auf der folgenden Skala: <br> 1 = Lehne stark ab <br> 2 = Lehne ab <br> 3 = Lehne eher $a b$ <br> 4 = Stimme eher zu <br> 5 = Stimme zu <br> 6 = Stimme stark zu |
| Note that the word "coursework" refers to anything that you do in the course, including assignments, activities, readings, etc. | Beachten Sie, dass das Wort "Kursaktivitäten" sich auf alle Dinge bezüglich Ihres Kurses beziehen, inklusive Übungsaufgaben, Lernmaßnahmen, Leseaufgaben u.s.w. |
| There are no right or wrong answers to these questions. Please answer them honestly. Some of the questions might seem repetitive, but it is important that you answer tham all to obtain the best possible results. | Bei diesen Fragen gibt es keine richtigen oder falschen Antworten. Bitte beantworten Sie die Fragen ehrlich. Manche Fragen scheinen sich zu wiederholen, aber es ist wichtig, dass Sie alle Fragen vollständig beantworten um die besten Resultate zu erhalten. |
| 1. The coursewor | 1. Die Kursaktivitäten erwecken (halten) meine Aufmerksamkeit |
| 2. I have the opportunity to decide for myself how to meet the course goals. | 2. Ich habe die Möglichkeit, selbst zu entscheiden, wie ich die Ziele in diesem Kurs erreichen will. |
| 3. In general, the coursework is useful to m | 3. Im Allgemeinen ist der Kurs nützlich für mich |
| 4. The instructor is available to answer my questions about the coursework. | 4. Mein Lehrer ist bei Fragen bezüglich des Kurses verfügbar. |
| 5. The coursework is beneficial to me. | 5. Der Kurs bringt mir Vorteile |
| 6. The instructional methods used in this course hold my attention. | 6. Die Lehrmethoden in diesem Kurs erwecken meine Aufmerksamkeit |
| 7. I am confident that I can succeed in the coursework. | 7. Ich bin zuversichtlich, dass ich erfolgreich in diesem Kurs sein kann. |
| 8. I have the freedom to complete the coursework my own way. | 8. Ich habe die Freiheit, die Kursinhalte auf meine Art und Weise zu absolvieren |
| 9. I enjoy the instructional methods used in this course | 9. Mir gefallen die Lehrmethoden in diesem Kurs |
| 10. I feel that I can be successful in meeting the academic challenges in this course. | 10. Ich glaube, dass ich die akademischen Anforderungen in diesem Kurs erfolgreich bewältigen kann. |
| 11. The instructional methods engage me in the course. | 11. Die Lehrmethoden fördern mein Engagement/ Lernbereitschaft in diesem Kurs. |
| 12. I have options in how to achieve the goals of the course. | 12. Ich habe verschiedene Optionen, wie ich die Ziele in diesem Kurs erfüllen kann. |
| 13. I enjoy completing the coursework. | 13. Ich habe Freude daran, die Kursaufgaben zu bewältigen. |
| 14. I am capable of getting a high grade in this course. | 14. Ich bin fähig, eine gute Note in diesem Kurs zu erhalten. |


| 15. The coursework is interesting to me. | 15. Die Kursaktivitäten sind für mich interessant. |
| :--- | :--- |
| 16. The instructor is willing to assist me if I need <br> help in the course. | 16. Mein Lehrer ist bereit mir zu assistieren, falls <br> ich Hilfe brauche. |
| 17. I have control over how I learn the course <br> content. | 17. Ich kann selbst kontrollieren, wie ich die <br> Kursinhalte lerne. |
| 18. Throughout the course, I have felt that I <br> could be successful on the coursework. | 18. Während des gesamten Kurses hatte ich das <br> Gefühl, dass ich erfolgreich sein kann. |
| 19. I find the coursework to be relevant to my <br> future. | 19. Ich empfinde die Kursaktivitäten relevant für <br> meine Zukunft. |
| 20. The instructor cares about how well I do in <br> this course. | 20. Mein Lehrer kümmert sich darum, wie <br> erfolgreich ich in diesem Kurs abschneide. |
| 21. I will be able to use the knowledge I gain in <br> this course. | 21. Ich werde in der Lage sein, das erlernte <br> Wissen aus diesem Kurs anzuwenden |
| 22. The instructor is respectful of me. | 22. Mein Lehrer respektiert mich |
| 23. The knowledge I gain in this course is <br> important for my future. | 23. Das erlernte Wissen aus diesem Kurs ist für <br> meine Zukunft wichtig. |
| 24. The instructor is friendly. | 24. Mein Lehrer ist freundlich |
| 25. I believe that the instructor cares about my <br> feelings. | 25. Ich glaube, dass mein Lehrer sich darum <br> kümmert, wie ich mich fühle. |
| 26. I have flexibility in what I am allowed to do in <br> this course. | 26. Bezüglich des Kurses habe ich Freiheiten, <br> was ich machen kann. |

## MUSIC ${ }^{\circledR}$ Inventory (Icelandic translation of the Middle/High School version)

## Purpose

The purpose of the Icelandic version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Icelandic. The primary translator for this version was Asta Schram.

## Validity Evidence

The validity evidence for the use of the Icelandic translation of this version of the MUSIC Inventory with middle school students is very good. In a sample of 241 students in fifth- to eighth-grade (ages 10 to 13), Schram and Jones (2016) reported Cronbach's alpha values of .68 for empowerment, .87 for usefulness, .83 for success, .86 for interest, and .88 for caring. Confirmatory factor analysis showed that the five-factor model fit the data well, as demonstfrated by acceptable fit indices.

Hér á eftir koma tvær útgáfur af MMAMI-Icelandic spurningalistanum.
Öllum er heimilt að̃ nota listana en mikilvægt er að̀ orðalagi sé ekki breytt og að heimilda sé getið.
Fyrri listinn var prófaðður í náttúrufræð̀i hjá 5. - 8. bekk í grunnskólum á Íslandi. Hann hefur veriơ notað̛ur í ýmsum námsgreinum og á ýmsum námsstigum, bó ekki með börnum yngri en í 5 . bekk. Nemendur svöruờu spurningum á pappír í tímanum.
Frekari að̌ferðafræð̌ilegar upplýsingar:
https://vtechworks.lib.vt.edu/bitstream/handle/10919/64155/Schram AB D 2015.pdf?sequence=2
Seinni útgáfan af listanum hefur veriơ notuð með̃al íslenskra háskólanema. Listarnir eru mjög svipaðir. Orð̌alag í nokkrum spurningum er mið̌að̀ við̃ eldri pátttakendur og orðið námskeið hefur veriô sett í stað náttúrufræði. Auk pess hefur orð̌inu kennari í mörgum tilfellum verið breytt í kennarar, par sem oft kenna fleiri en einn í sama námskeiðinu. Pessi spurningalisti var sendur út rafrænt vegna fjölda og að̌stæð̆na (question pro), en einnig er hægt að fá nemendur til að svara á pappír í tímum. Svarhlutfall gæti pá væntanlega orðið hærra. Grein með aðferðafræðilegum upplýsingum er í mótun.

Skilgreiningar á páttum úr MUSIC módeli í spurningum:

1. Empowerment - Valdefling
2. Usefulness - Gagnsemi
3. Success - Góður árangur
4. Empowerment
5. Caring - Umhyggja
6. Usefulness
7. Success
8. Empowerment
9. Success
10. Interest - Áhugi
11. Caring
12. Interest
13. Success
14. Empowerment
15. Caring
16. Interest
17. Caring
18. Usefulness

## Leiǒbeiningar fyrir MMAMI-Icelandic- yngri:

Markmið með fyrirlögn spurningalistans er athuga hvort fimm pættir sem tengjast áhugahvöt, p.e. valdefling, gagnsemi, góður árangur, áhugi og umhyggja, séu til staðar í kennsluumhverfi nemenda. Nið̌urstöð̆ur eru leiððbeinandi fyrir kennara varðandi mótun á kennsluað̂ferðum og öð̈ru er snertir kennsluumhverfiơ pannig að́ áhugahvöt nemenda aukist og peir verði virkari í námi. Auk pess geta rannsakendur notað̀ spurningalistann í stærri rannsóknum á áhugahvöt.

Nemendur gætu fyllt út listann á síðustu 10-15 mínútum kennslustundarinnar. Sumir nemendur gætu purft á pví að̃ halda að lesiò væri fyrir pá. Kennarinn í peirri námsgrein sem veriò er að spyrja um má pó ekki lesa eð̃a að́stoða nemandann par sem hann sér hvað̃an svörin koma.

Sá sem leggur könnunina fyrir nemendur les eð̃a segir eitthvað á pessa leið:
Okkur langar til að̃ vita hvað ykkur finnst um námið, hvort ykkur finnst pið̀ vera að̃ ná árangri og hvort
 og skólana okkar, í heild, ennpá betri. Pað er ekki skylda að taka pátt en við̀ yrðum mjög pakklát ef pið
 að̃ vera hægt að̀ vita hver á hvað̃a blað. Viðð biðjum ykkur að̌ svara heið̃arlega pví sem ykkur finnst. Pegar pið̀ eruð búin að̃ fylla út blað̀ið, setjið pið pað̀ í umslagið̀ sem er við̀ dyrnar um leið og pið farið út. Reynið̀ að̃ fara hljóðlega svo piò truflið̀ engan sem er enn að̃ fylla út könnunina.
Kærar pakkir fyrir pátttökuna.

MMAMI-Icelandic - spurningalisti - yngri (ca. 11-18 ára)
Pessi atrioi eru um tímana í vetur.
Veldu stig á skalanum frá 1 og upp í 6 .

| 1 <br> Mjög <br> ósammála | 2 <br> Ósammála | 3 <br> Nokkuõ <br> ósammála | 4 <br> Nokkuõ <br> sammála | 5 <br> Sammála | 6 <br> Mjög <br> sammála |
| :---: | :---: | :---: | :---: | :---: | :---: |

1. ___Ég hef svolítiò val um hvaơ ég geri í $\qquad$ -tímum.
2. ___ Pað sem ég læri í $\qquad$ -tímum er mikilvægt fyrir framtío mína.
3. _E_ Ég get fengið háa einkunn í $\qquad$ (námsgrein).
___Ég hef frelsi til að klára vinnuna í $\qquad$ (námsgr.) á minn eigin hátt.
4. $\qquad$ (námsgrein) - kennarinn minn sýnir mér virð̊ingu.
5. ___Mér finnst ég almennt hafa gagn af pví sem ég er að læra í $\qquad$
6. ——Ég er viss um að̃ ég get náð góðum árangri í $\qquad$
7. __Ég ræð pví hvernig ég vinn með eð̃a læri námsefnið.
8. ___ Mér finnst ég geti náð góðum árangri í $\qquad$
9. $\qquad$ kennarinn er tilbúinn til að̌ hjálpa mér ef ég parf á hjálp að halda.
10. ——Ég hef ánægju af aơ sinna vinnunni í
11. ___Mér finnst ég geti ráðiơ viơ pað̀ sem ég á aõ gera í $\qquad$ -.
12. $\qquad$ Ég get klárað̃ vinnuna í $\qquad$ á ýmsan hátt.
13. $\qquad$ kennarinn minn vill að mér gangi vel í tímum.
14. $\qquad$ Vinnan í $\qquad$ -tímum heldur athygli minni.
15. $\qquad$ kennarinn minn er vingjarnlegur.
16. $\qquad$ Mér finnst vinnan og námiờ í $\qquad$ -tímum vera pýðingarmikiơ fyrir framtíóina.

MMAMI-Icelandic - spurningalisti - (eldri en 18 ára)
Pessi atriǒi eiga við (námskeiò/námsgrein) í vetur.
Veldu stig á skalanum frá 1 og upp í 6.

| 1 <br> Mjög <br> ósammála | 2 <br> Ósammála | 3 <br> Nokkuõ <br> ósammála | 4 <br> Nokkuð <br> sammála | 5 <br> Sammála | 6 <br> Mjög <br> sammála |
| :---: | :---: | :---: | :---: | :---: | :---: |

1. Ég hef nokkurt val um pað hvernig ég næ markmiðum námskeið̌ins.
2. Paठ sem ég læri í námskeiðinu er mikilvægt fyrir framtío mína.
3. Ég get náð góðrri lokaeinkunn í pessu námskeið̀i.
4. Ég hef frelsi til að̃ klára verkefni námskeiơsins á minn eigin hátt.
5. Kennarar í námskeið̌inu sýna mér virðingu.
6. Mér finnst ég hafa gagn af pví sem ég er að læra í námskeiðinu.
7. Ég er viss um að̃ ég get náð góðum árangri í námskeið̀inu.
8. Ég ræð pví hvernig ég vinn með̀ eð̃a læri námsefnið.
9. Mér finnst ég geti náð góðum árangri í námskeiðinu.
10. Ég hef áhuga á námsefninu í námskeiðinu.
11. Kennarar eru almennt tilbúnir til aơ hjálpa mér ef ég parf á hjálp aơ halda.
12. Ég hef ánægju af aò sinna náminu í námskeiơinu.
13. Mér finnst ég geti rádið viơ pað sem ég er að̃ gera í tímum.
14. Ég get lokiơ verkefnum í námskeið̌inu á ýmsan hátt.
15. Kennararnir vilja að mér gangi vel í námskeið̌inu.
16. Pað̀ sem við̀ erum að gera í tímum heldur athygli minni.
17. Kennararnir í námskeið̀inu eru vingjarnlegir.
18. Mér finnst vinnan í námskeið̀inu vera pýð̊ingarmikil fyrir framtíð mína.

## MUSIC ${ }^{\circledR}$ Inventory (Japanese translation of the College Student version)

## Purpose

The purpose of the Japanese translation of the College Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Japanese. The initial translator for this version was Dr. Koichiro Asa at Bunkyo Gakuin University, Japan. The translation was backtranslated to English by Takako Moroi at Bunkyo Gakuin University, Japan and checked by Brett Jones.

The following pages include three versions of this translation: College Student version past tense, College Student version present tense, and College Student version present tense for the major/program level.

## Instructions for Administering This Version

Please closely follow the instruction in the "Instructions for Administering the College Student version of the MUSIC Inventory" section of this document.

## Instructions for Scoring the MUSIC Inventory (College Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.
Empowerment score $=($ item $2+$ item $8+$ item $12+$ item $17+$ item 26) $/ 5$
Usefulness score $=($ item $3+$ item $5+$ item $19+$ item $21+$ item 23) $/ 5$
Success score $=($ item $7+$ item $10+$ item $14+$ item 18) / 4
Interest score $=($ item $1+$ item $6+$ item $9+$ item $11+$ item $13+$ item 15) / 6
Caring score $=($ item $4+$ item $16+$ item $20+$ item $22+$ item $24+$ item 25) $/ 6$
Other important notes:

- Do not sum or average all 26 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.


## Validity Evidence

Validity evidence for this translation is ongoing. Because it is a direct translation of the English version of the MUSIC Inventory, it is likely that this version will demonstrate acceptable validity.

The inventories are provided on the following pages.

| MUSIC Inventory <br> （College Student version，past tense） <br> （can be administered near the end of a course，or the present tense version can be used） | Japanese Translation |
| :---: | :---: |
| Instructions | 指示 |
| The items that refer to a course or instructor refer to this course and your primary instructor | 授業もしくは講師という用語は，この授業およ びメインの講師を指します。 |
| Please rate the items in this section using the following scale： $\begin{aligned} & 1=\text { Strongly disagree } \\ & 2=\text { Disagree } \\ & 3=\text { Somewhat disagree } \\ & 4=\text { Somewhat agree } \\ & 5=\text { Agree } \\ & 6=\text { Strongly agree } \end{aligned}$ | ```下記の尺度を用い, それぞれの項目の評価をし てください。 1 = 全くそう思わない \(2=\) そう思わない \(3=\) ややそう思わない \(4=\) ややそう思う 5 = そう思う \(6=\) とてもそう思う。``` |
| Note that the word＂coursework＂refers to anything that you did in the course，including assignments，activities，readings，etc． | 注：＂課題＂は授業内で行ったすべてのもの（宿題，クラス活動，リーディングなどを含む）を指します。 |
| There are no right or wrong answers to these questions．Please answer them honestly．Some of the questions might seem repetitive，but it is important that you answer tham all to obtain the best possible results． | 正解や不正解はありません。正直にお答え下さ い。いくつかの質問は繰り返しに見えるかもし れませんが，すべてのことは，最良の結果を得 るために重要なことです。 |
| 1．The coursework held my attention． | 1．課題は私にとって興味深いものであっ た。 |
| 2．I had the opportunity to decide for myself how to meet the course goals． | 2．授業のゴールをどのように達成するか自分で決める機会があった。 |
| 3．In general，the coursework was useful to me． | 3．課題は概ね自分にとって役立つものであっ た。 |
| 4．The instructor was available to answer my questions about the coursework． | 4．講師は課題についての質問に対応した。 |
| 5．The coursework was beneficial to me． | 5．課題は自分にとって利益があった。 |
| 6．The instructional methods used in this course held my attention． | 6．この授業で使われた指導方法は私の注意 を引いた。 |
| 7．I was confident that I could succeed in the coursework． | 7．課題が上手くできると確信を持てた。 |
| 8．I had the freedom to complete the coursework my own way． | 8．課題をやる方法を自由に選べた。 |
| 9．I enjoyed the instructional methods used in this course． | 9．授業で使われた指導方法を楽しめた。 |
| 10．I felt that I could be successful in meeting the academic challenges in this course． | 10．学問的な課題に挑戦し，上手く対応でき ると感じた。 |
| 11．The instructional methods engaged me in the course． | 11．この授業で使われた指導方法に心が引き込まれた。 |
| 12．I had options in how to achieve the goals of the course． | 12．授業の目標をどう達成するかについて， その方法を選ぶことができた。 |


| 13．I enjoyed completing the coursework． | 13．課題を完成させることを楽しむことがで きた。 |
| :---: | :---: |
| 14．I was capable of getting a high grade in this course． | 14．授業でよい成績を得ることができた。 |
| 15．The coursework was interesting to me． | 15．課題は興味深いものだった。 |
| 16．The instructor was willing to assist me if I needed help in the course． | 16．授業で助けが必要な場合，教員は喜んで援助をした。 |
| 17．I had control over how I learned the course content． | 17．授業内容をどのように学習するか自分で管理できた。 |
| 18．Throughout the course，I felt that I could be successful on the coursework． | 18．授業中，課題を上手くできるだろうと確信できた。 |
| 19．I found the coursework to be relevant to my future． | 19．課題は私の将来に関連していることが分 かった。 |
| 20．The instructor cared about how well I did in this course． | 20．講師は私が授業中どの程度よくできてい るかを気にかけてくれた。 |
| 21．I will be able to use the knowledge I gained in this course． | 21．授業で得た知識をいつか使うことができ ると思う。 |
| 22．The instructor was respectful of me． | 22．講師は私に敬意を払ってくれた。 |
| 23．The knowledge I gained in this course is important for my future． | 23．授業で得た知識は私の将来にとって重要 だった。 |
| 24．The instructor was friendly． | 24．講師は友好的だった。 |
| 25．I believe that the instructor cared about my feelings． | 25．講師は私の感情を気にかけてくれたと思 う。 |
| 26．I had flexibility in what I was allowed to do in this course． | 26．授業では，自分で選んで決めることがで きるものがあった。 |


| MUSIC Inventory <br> （College Student version，present tense） <br> （to be administered near the beginning or middle of a course，although it can be used at the end） | Japanese Translation |
| :---: | :---: |
| Instructions | 指示 |
| The items that refer to a course or instructor refer to this course and your primary instructor | 授業もしくは講師という用語は，この授業およ びメインの講師を指します。 |
| Please rate the items in this section using the following scale： $\begin{array}{\|l} \hline 1=\text { Strongly disagree } \\ 2=\text { Disagree } \\ 3=\text { Somewhat disagree } \\ 4=\text { Somewhat agree } \\ 5=\text { Agree } \\ 6=\text { Strongly agree } \\ \hline \end{array}$ | ```下記の尺度を用い, それぞれの項目の評価をし てください。 \(1=\) 全くそう思わない 2 = そう思わない \(3=\) ややそう思わない 4 = ややそう思う 5 = そう思う \(6=\) とてもそう思う。``` |
| Note that the word＂coursework＂refers to anything that you do in the course，including assignments，activities，readings，etc． | 注：＂課題＂は授業内で行ったすべてのもの（宿題，クラス活動，リーディングなどを含む）を指します。 |
| There are no right or wrong answers to these questions．Please answer them honestly．Some of the questions might seem repetitive，but it is important that you answer tham all to obtain the best possible results． | 正解や不正解はありません。正直にお答え下さ い。いくつかの質問は繰り返しに見えるかもし れませんが，すべてのことは，最良の結果を得 るために重要なことです。 |
| 1．The coursework holds my attention． | 1．課題は私にとって興味深いものである。 |
| 2．I have the opportunity to decide for myself how to meet the course goals． | 2．授業のゴールをどのように達成するか自分で決める機会がある。 |
| 3．In general，the coursework is useful to me． | 3．課題は概ね自分にとって役立つものであ る。 |
| 4．The instructor is available to answer my questions about the coursework． | 4．講師は課題についての質問に対応する。 |
| 5．The coursework is beneficial to me． | 5．課題は自分にとって利益がある。 |
| 6．The instructional methods used in this course hold my attention． | 6．この授業で使われている指導方法は私の注意を引く。 |
| 7．I am confident that I can succeed in the coursework． | 7．課題が上手くできると確信している。 |
| 8．I have the freedom to complete the coursework my own way． | 8．課題をやる方法を自由に選べる。 |
| 9．I enjoy the instructional methods used in this course． | 9．授業で使われた指導方法を楽しめる。 |
| 10．I feel that I can be successful in meeting the academic challenges in this course． | 10．学問的な課題に挑戦し，上手く対応でき ると感じる。 |
| 11．The instructional methods engage me in the course． | 11．この授業で使われている指導方法に，心 が引き込まれる。 |
| 12．I have options in how to achieve the goals of the course． | 12．授業の目標をどう達成するかについて， その方法を選ぶことができる。 |


| 13．I enjoy completing the coursework． | 13．課題を完成させることを楽しむことがで <br> きる。 |
| :--- | :--- |
| 14．I am capable of getting a high grade in this <br> course． | 14．授業でよい成績を得ることができる。 |
| 15．The coursework is interesting to me． | 15．課題は興味深いものだ。 |
| 16．The instructor is willing to assist me if I need <br> help in the course． | 16．授業で助けが必要な場合，教員は喜んで <br> 援助をしてくれる。 |
| 17．I have control over how I learn the course <br> content． | 17．授業内容をどのように学習するか自す分で <br> 管理できる。 |
| 18．Throughout the course，I have felt that I <br> could be successful on the coursework． | 18．授業中，課題を上手くできるだろうと確 <br> 信できる。 |
| 19．I find the coursework to be relevant to my <br> future． | 19．課題は私の将来に関連していることが分 <br> かる。 |
| 20．The instructor cares about how well I do in <br> this course． | 20．講師は私が授業中どの程度よくできてい <br> るかを気にかけてくれる。 |
| 21．I will be able to use the knowledge I gain in <br> this course． | 21．授業で得た知識をいつか使うことができ <br> ると思う。 |
| 22．The instructor is respectful of me． | 22．講師は私に敬意を払ってくれる。 |
| 23．The knowledge I gain in this course is <br> important for my future． | 23．授業で得た知識は私の将来にとって重要 <br> だ。 |
| 24．The instructor is friendly． | 24．講師は友好的だ。 |
| 25．I believe that the instructor cares about my <br> feelings． | 25．講師は私の感情を気にかけてくれると思 <br> う。 |
| 26．I have flexibility in what I am allowed to do in <br> this course． | 26．授業では，自分で選んで決めることがで <br> きるものがある。 |


| MUSIC Inventory <br> （College Student version，present tense， major／program level） <br> （to be administered while the student is enrolled in college） | Japanese Translation |
| :---: | :---: |
| Instructions | 指示 |
| ［Thinking about the［insert name of major or program］courses you have taken and are currently taking in your academic major（i．e．， ［insert specific majors］），please rate your level of agreement or disagreement with the following statements using the following scale： | ［具体的な専攻名を挿入］専攻において，授業を取 った，もしくは最近履修している［専攻名もしく はプログラム名を挿入］の授業について考えなが ら，以下の項目について賛成もしくは反対の度合いの評価をしてください。 |
| $\begin{aligned} & \hline 1=\text { Strongly disagree } \\ & 2=\text { Disagree } \\ & 3=\text { Somewhat disagree } \\ & 4=\text { Somewhat agree } \\ & 5=\text { Agree } \\ & 6=\text { Strongly agree } \end{aligned}$ | $\begin{aligned} & 1=\text { 全くそう思わない } \\ & 2=\text { そう思わない } \\ & 3=\text { ややそう思わない } \\ & 4=\text { ややそう思う } \\ & 5=\text { そう思う } \\ & 6=\text { とてもそう思う。 } \end{aligned}$ |
| There are no right or wrong answers for these questions．Please answer them honestly．Some of the questions might seem repetitive，but it is important that you answer them all to obtain the best possible results． | 正解や不正解はありません。正直にお答え下さ い。いくつかの質問は繰り返しに見えるかもし れませんが，すべてのことは，最良の結果を得 るために重要なことです。 |
| Also，note that the word＂coursework＂refers to anything that you did in these courses， including assignment，activities，readings， etc． | 注：＂課題＂は授業内で行ったすべてのもの（宿題，クラス活動，リーディングなどを含む）を指します。 |
| 1．The coursework holds my attention． | 1．課題は私の関心を引く。 |
| 2．I have the opportunity to decide for myself how to meet the course goals． | 2．授業のゴールをどのように達成するか自分で決める機会がある。 |
| 3．In general，the coursework is useful to me． | 3．課題は概ね自分にとつて役立つものである。 |
| 4．The instructor is available to answer my questions about the coursework． | 4．講師は課題についての質問に対応する。 |
| 5．The coursework is beneficial to me． | 5．課題は自分にとって利益がある。 |
| 6 ．The instructional methods used in this course hold my attention． | 6．授業で使われている指導方法は私の注意 を引く。 |
| 7．I am confident that I can succeed in the coursework． | 7．課題が上手くできると確信している。 |
| 8．I have the freedom to complete the coursework my own way． | 8．課題をやる方法を自由に選べる。 |
| 9．I enjoy the instructional methods used in this course． | 9．授業で使われた指導方法を楽しめる。 |
| 10．I feel that I can be successful in meeting the academic challenges in this course． | 10．学問的な課題に挑戦し，上手く対応できると感じる。 |


| 11．The instructional methods engage me in the course． | 11．授業で使われている指導方法に，心が引 き込まれる。 |
| :---: | :---: |
| 12．I have options in how to achieve the goals of the course． | 12．授業の目標をどう達成するかについて， その方法を選ぶことができる。 |
| 13． 1 | 13．課題を完成させることを楽しむことがで きる。 |
| 14．I am capable of getting a high grade in this course． | 14．授業でよい成績を得ることができる。 |
| 15．The coursework is interesting to me． | 15．課題は興味深いものだ。 |
| 16．The instructor is willing to assist $m e$ if help in the course． | 16．授業で助けが必要な場合，教員は喜んで援助をしてくれる。 |
| 17．I have control over how I learn the course content． | 17．授業内容をどのように学習するか自分で管理できる。 |
| 18．Throughout the course，I have felt that I could be successful on the coursework． | 18．授業中，課題を上手くできるだろうと確信できる。 |
| 19．I find the coursework to be relevant to my future． | 19．課題は私の将来に関連していることが分 かる。 |
| 20．The instructor cares about how well I do in this course． | 20．講師は私が授業中どの程度よくできてい るかを気にかけてくれる。 |
| this course． | 21．授業で得た知識をいつか使うことができ ると思う。 |
| 22．The instructor is respectful of me． | 22．講師は私に敬意を払ってくれる。 |
| 23．The knowledge I gain in this course is important for my future． | 23．授業で得た知識は私の将来にとって重要 だ。 |
| 24．The instructor is friendly． | 24．講師は友好的だ。 |
| 25．I believe that the instructor cares about my feelings． | 25．講師は私の感情を気にかけてくれると思 う。 |
| 26．I have flexibility in what I am allowed to do in this course． | 26．授業では，自分で選んで決めることがで きるものがある。 |

# MUSIC ${ }^{\circledR}$ Inventory (Korean translation of the College Student version) 

## Purpose

The purpose of the Korean translation of the College Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Korean. The initial translator for this version was EunSoo Park from South Korea. The translation was back-translated to English by Dr. Hyuksoo Kwon and checked by Brett Jones.

## Instructions for Administering This Version

Please closely follow the instruction in the "Instructions for Administering the College Student version of the MUSIC Inventory" section of this document.

## Instructions for Scoring the MUSIC Inventory (College Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.
Empowerment score $=($ item $2+$ item $8+$ item $12+$ item $17+$ item 26) $/ 5$
Usefulness score $=($ item $3+$ item $5+$ item $19+$ item $21+$ item 23) $/ 5$
Success score $=($ item $7+$ item $10+$ item $14+$ item 18) / 4
Interest score $=($ item $1+$ item $6+$ item $9+$ item $11+$ item $13+$ item 15 $) / 6$
Caring score $=($ item $4+$ item $16+$ item $20+$ item $22+$ item $24+$ item 25) $/ 6$
Other important notes:

- Do not sum or average all 26 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.


## Validity Evidence

Validity evidence for this translation is ongoing. Because it is a direct translation of the English version of the MUSIC Inventory, it is likely that this version will demonstrate acceptable validity.

The inventories are provided on the following pages.

본 설문 문항에서 언급되는 수업 또는 교수는 현재 수강하고 있는 수업의 교수와 수업을 의미합니다. 또한 "수업"은 수업에서 이루어진 과제, 활동, 읽기 등을 포함한 모든 수업 활동을 의미합니다. 설문 문항에 대한 응답은 옳고 틀린 대답이 없습니다. 솔직하게 응답해 주시면 감사하겠습니다.

아래의 척도를 사용하여 문항의 동의 정도를 표시해주세요.

| 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 매우 동의하지 <br> 않는다. | 2 <br> 동의하지 <br> 않는다 | 3 <br> 조금 동의하지 <br> 않는다 | 4 <br> 조금 동의한다 | 5 <br> 동의한다 | 6 <br> 매우 동의한다. |

$\qquad$ 1. 수업은 나의 관심을 끈다
2. 나는 수업 목표를 어떻게 달성할 지에 대해 스스로 결정할 수 있는 기회가 있다.
$\qquad$ 3. 수업은 전반적으로 유용하다.
$\qquad$ 4. 교수는 수업에 관한 내 질문에 대해 대답해 준다.
$\qquad$ 5. 수업은 나한테 도움이 된다.
$\qquad$ 6. 수업에서 사용된 교수 방법은 나의 관심을 끈다.
$\qquad$ 7. 나는 이 수업을 잘 해낼 자신이 있다.
8. 나는 내가 원하는 방식대로 수업 활동을 할 수 있는 자유가 있다.
9. 나는 이 수업에서 사용되는 교수방법이 좋다.
10. 나는 이 수업에서의 학업적인 도전을 성공적으로 해 낼 수 있을 것 같다.
11. 수업 방법은 나를 수업에 참여하게끔 한다.
12. 나는 수업 목표를 어떤 식으로 성취할지 선택할 수 있다.
13. 나는 수업을 해나가는 것이 즐겁다.
14. 나는 이 수업에서 높은 성적을 받을 수 있다.
15. 나는 이 수업이 재미있다.
16. 교수는 내가 수업에서 도움이 필요하면 언제든지 나를 도와준다.
17. 수업내용을 어떻게 배울 지에 대해 내가 결정 할 수 있다.
18. 수업을 하면서 내가 수업에서 잘 해 낼 수 있을 것이라 느꼈다.
19. 나는 이 수업이 나의 미래와 관련 있다고 생각한다.
20. 교수는 내가 수업에서 잘하고 있는지 관심을 가지고 있다.
21. 나는 이 수업에서 배운 지식을 사용할 수 있을 것이다.
22. 교수는 나를 존중해준다.
23. 이 수업에서 배우는 지식은 나의 미래를 위해 중요하다.
24. 교수는 친근하다.
25. 나는 교수가 나의 감정을 배려하고 있다고 생각한다.
26. 내가 이 수업에서 무엇을 해야하는지에 대해서는 탄력적이다.

## MUSIC ${ }^{\circledR}$ Inventory (Korean translation of the Middle/High School Student version)

## Purpose

The purpose of the Korean translation of the Middle/High School Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Korean. The initial translator for this version was EunSoo Park from South Korea. The translation was back-translated to English by Dr. Hyuksoo Kwon and checked by Brett Jones. The items on the following pages are in the same order as the items in the Middle/High School English version in this document.

## Instructions for Scoring the MUSIC Inventory (Middle/High School Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.
Empowerment score $=($ item $5+$ item $12+$ item $16+$ item 18) / 4
Usefulness score $=($ item $1+$ item $9+$ item 13) $/ 3$
Success score $=($ item $2+$ item $4+$ item $7+$ item 10) $/ 4$
Interest score $=($ item $6+$ item $8+$ item 17) $/ 3$
Caring score $=($ item $3+$ item $11+$ item $14+$ item 15) $/ 4$
Other important notes:

- Do not sum or average all 18 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.


## Validity Evidence

Validity evidence for this translation is ongoing. Because it is a direct translation of the English version of the MUSIC Inventory, it is likely that this version will demonstrate acceptable validity.

The inventory is provided on the following pages.

본 설문 문항에서 언급되는 수업 또는 교수는 현재 수강하고 있는 수업의 교수와 수업을 의미합니다. 또한 "수업"은 수업에서 이루어진 과제, 활동, 읽기 등을 포함한 모든 수업 활동을 의미합니다. 설문 문항에 대한 응답은 옳고 틀린 대답이 없습니다. 솔직하게 응답해 주시면 감사하겠습니다.

아래의 척도를 사용하여 문항의 동의 정도를 표시해주세요.

| 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 매우 동의하지 <br> 않는다. | 2 <br> 동의하지 <br> 않는다 | 3 <br> 조금 동의하지 <br> 않는다 | 4 <br> 조금 동의한다 | 5 <br> 동의한다 | 6 <br> 매우 동의한다. |

1. 이 수업에서 배우는 지식은 나의 미래를 위해 중요하다.
$\qquad$ 2. 나는 이 수업을 잘 해낼 자신이 있다.
$\qquad$ 3. 교수는 내가 수업에서 잘하고 있는지 관심을 가지고 있다.
$\qquad$ 4. 나는 이 수업에서 높은 성적을 받을 수 있다.
$\qquad$ 5. 나는 내가 원하는 방식대로 수업 활동을 할 수 있는 자유가 있다.
$\qquad$ 6. 나는 이 수업이 재미있다.
$\qquad$ 7. 나는 이 수업에서의 학업적인 도전을 성공적으로 해 낼 수 있을 것 같다.
$\qquad$ 8. 나는 수업을 해나가는 것이 즐겁다.
$\qquad$ 9. 수업은 전반적으로 유용하다.
2. 수업을 하면서 내가 수업에서 잘 해 낼 수 있을 것이라 느겼다.
3. 교수는 친근하다.
4. 내가 이 수업에서 무엇을 해야하는지에 대해서는 탄력적이다.
$\qquad$ 13. 나는 이 수업이 나의 미래와 관련 있다고 생각한다.
5. 교수는 내가 수업에서 도움이 필요하면 언제든지 나를 도와준다.
6. 교수는 나를 존중해준다.
7. 수업내용을 어떻게 배울 지에 대해 내가 결정 할 수 있다.
8. 수업은 나의 관심을 끈다
9. 는 수업 목표를 어떤 식으로 성취할지 선택할 수 있다.

## MUSIC ${ }^{\circledR}$ Inventory (Polish translation of the College Student version)

## Purpose

The purpose of the Polish translation of the College Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Polish. The translator for this version was Dr. Robert Gajewski (Warsaw University of Technology, Poland). The translation was back-translated to English by a Polish citizen and checked by Brett Jones. The English items on the following pages are not the back-translations; rather, they are the original English items.

## Instructions for Administering This Version

Please closely follow the instruction in the "Instructions for Administering the College Student version of the MUSIC Inventory" section of this document.

## Instructions for Scoring the MUSIC Inventory (College Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.

$$
\begin{aligned}
& \text { Empowerment score }=(\text { item } 2+\text { item } 8+\text { item } 12+\text { item } 17+\text { item 26) } / 5 \\
& \text { Usefulness score }=(\text { item } 3+\text { item } 5+\text { item } 19+\text { item } 21+\text { item 23) } / 5 \\
& \text { Success score }=(\text { (item } 7+\text { item } 10+\text { item } 14+\text { item 18) } / 4 \\
& \text { Interest score }=(\text { item } 1+\text { item } 6+\text { item } 9+\text { item } 11+\text { item } 13+\text { item 15) } / 6 \\
& \text { Caring score }=(\text { item } 4+\text { item } 16+\text { item } 20+\text { item } 22+\text { item } 24+\text { item 25) } / 6
\end{aligned}
$$

## Other important notes:

- Do not sum or average all 26 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.


## Validity Evidence

No studies have been conducted to assess the validity evidence for this Polish translation. However, it can be used for teaching purposes. If you conduct research and collect validity evidence with this version, please contact Brett Jones and he will report your findings here.

The inventory is provided on the following pages.

## MUSIC Inventory - English version (College Student version, past tense)

(to be administered near the end of a course)

## Instructions

Please rate the items in this section using the
following scale:
1 = Strongly disagree
2 = Disagree
3 = Somewhat disagree
4 = Somewhat agree
5 = Agree
6 = Strongly agree
Note that the word "coursework" refers to anything that you did in the course, including assignments, activities, readings, etc.

1. The coursework held my attention.
2. I had the opportunity to decide for myself how to meet the course goals.
3. In general, the coursework was useful to me.
4. The instructor was available to answer my questions about the coursework.
5. The coursework was beneficial to me.
6. The instructional methods used in this course held my attention.
7. I was confident that I could succeed in the coursework.
8. I had the freedom to complete the coursework my own way.
9. I enjoyed the instructional methods used in this course.
10. I felt that I could be successful in meeting the academic challenges in this course.
11. The instructional methods engaged me in the course.
12. I had options in how to achieve the goals of the course.
13. I enjoyed completing the coursework.
14. I was capable of getting a high grade in this course.
15. The coursework was interesting to me.
16. The instructor was willing to assist me if I needed help in the course.
17. I had control over how I learned the course content.
18. Throughout the course, I felt that I could be successful on the coursework.
19. I found the coursework to be relevant to my future.

## MUSIC Inventory - Polish translation (wersja dla studentów, czas przeszły)

 (do przeprowadzenia pod koniec kursu)Instrukcje
Oceń poszczególne stwierdzenia używając
poniższej skali
1 = Absolutnie nie zgadzam się
2= Nie zgadzam się
3= Trochę nie zgadzam się
4= Trochę zgadzam się
5= Zgadzam się
6= W pełni się zgadzam
Zauważ, że termin „zajęcia" nie odnosi się jedynie do wykładów i ćwiczeń, ale do wszystkiego co robisz w ramach kursu włączając w to prace domowe, aktywności, lektury.

1 Zajęcia w kursie przykuły moją uwagę
2 Miałem okazję sam decydować o tym, jak osiągnąć cele kursu
3 Ogólnie, zajęcia były dla mnie przydatne
4 Prowadzący był dostępny, aby odpowiedzieć na
moje pytania dotyczące zajęć
5 Zajęcia przyniosły mi korzyści
6 Metody kształcenia stosowane w tym kursie zwróciły moją uwage
7 Byłem przekonany, że mogę odnieść sukces w zajęciach
8 Miałem swobodę realizacji i ukończenia zajęć na swój własny sposób
9 Podobały mi się metody kształcenia stosowane w tym kursie
10 Czułem, że mogę odnieść sukces w sprostaniu wyzwaniom akademickim w tym kursie
11 Metody kształcenia zaangażowały mnie w kurs
12 Miałem opcje, w jaki sposób osiągnąć cele kursu
13 Uczestnictwo w kursie sprawiło mi przyjemność
14 Byłem w stanie uzyskać wysoką ocenę na tym kursie
15 Zajęcia były dla mnie interesujące
16 Prowadzący chętnie mi pomagał, gdy
potrzebowałem pomocy podczas kursu
17 Miałem kontrolę nad tym, jak poznawałem treść kursu
18 Przez cały kurs czułem, że mogę odnieść sukces w realizacji zadań
19 Stwierdziłem, że te zajęcia mają znaczenie dla mojej przyszłości
20. The instructor cared about how well I did in this course.
21. I will be able to use the knowledge I gained in this course.
22. The instructor was respectful of me.
23. The knowledge I gained in this course is important for my future.
24. The instructor was friendly.
25. I believe that the instructor cared about my feelings.
26. I had flexibility in what I was allowed to do in this course.

[^0]
## MUSIC ${ }^{\circledR}$ Inventory (Romanian translation of the College Student version, past tense)

## Purpose

The purpose of the College Student version of the MUSIC Inventory is to measure the extent to which college students perceive the presence of each of the MUSIC model components in a college course. It can be used by professors to help them identify areas of strengths and weaknesses related to factors that affect students' motivation and engagement.

The primary translator for this version was Dr. Liviu Rosca and it was back translated by Dr. Daniela Maria Cretu. Both of these translators are professors at Lucian Blaga University of Sibiu in Romania.

## Instructions for Administering This Version

Please closely follow the instruction in the "Instructions for Administering the College Student version of the MUSIC Inventory" section of this document.

## Instructions for Scoring the MUSIC Inventory (College Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.
Empowerment score $=($ item $2+$ item $8+$ item $12+$ item $17+$ item 26) $/ 5$
Usefulness score $=($ item $3+$ item $5+$ item $19+$ item $21+$ item 23) $/ 5$
Success score $=($ item $7+$ item $10+$ item $14+$ item 18) $/ 4$
Interest score $=($ item $1+$ item $6+$ item $9+$ item $11+$ item $13+$ item 15) / 6
Caring score $=($ item $4+$ item $16+$ item $20+$ item $22+$ item $24+$ item 25) $/ 6$
Other important notes:

- Do not sum or average all 26 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.


## Validity Evidence

There is currently no validity evidence for this specific Romanian translation. However, given that it is translated directly from the English version, it is likely that this translated version will also produce scores that are valid for use with college students.

The inventory is provided on the following two pages.

## MUSIC Inventory, College Student version, past tense

(to be administered near the end of a course)

| MUSIC Inventory - English version | Romanian Translation |
| :---: | :---: |
| Instructions | Instrucţiuni |
| The items that refer to a course or instructor refer to this course and your primary instructor | Itemii care se referă la curs sau instructor se referă la acest curs şi la instructorul principal (titularul de curs). |
| Please rate the items in this section using the following scale: <br> 1 = Strongly disagree <br> 2 = Disagree <br> 3 = Somewhat disagree <br> 4 = Somewhat agree <br> 5 = Agree <br> $6=$ Strongly agree | Vă rugăm să utilizaţi scala de mai jos pentru marcarea răspunsurilor Dvs.: $\begin{aligned} & 1 \text { = Total dezacord } \\ & 2=\text { Dezacord } \\ & 3=\text { Dezacord parţial } \\ & 4=\text { Acord parţial } \\ & 5=\text { Acord } \\ & 6=\text { Total acord } \end{aligned}$ |
| Note that the word "coursework" refers to anything that you do in the course, including assignments, activities, readings, etc. | Observaţi faptul că prin "activitate la curs" înţelegem tot ce ați facut la curs, inclusiv sarcinile de lucru, activitățile, documentarea etc. |
| There are no right or wrong answers to these questions. Please answer them honestly. Some of the questions might seem repetitive, but it is important that you answer tham all to obtain the best possible results. | Nu există răspunsuri bune sau greşite ale acestor întrebări. Vă rugăm să răspundeţi sincer. Unele dintre întrebări vă vor părea repetitive, dar este important să răspundeţi la toate pentru a obţine cele mai bune rezultate. |

1. The coursework held my attention.
2. I had the opportunity to decide for myself how to meet the course goals.
3. In general, the coursework was useful to me.
4. The instructor was available to answer my questions about the coursework.
5. The coursework was beneficial to me.
6. The instructional methods used in this course held my attention.
7. I was confident that I could succeed in the coursework.
8. I had the freedom to complete the coursework my own way.
9. I enjoyed the instructional methods used in this course.
10. I felt that I could be successful in meeting the academic challenges in this course.
11. The instructional methods engaged me in the course.
12. I had options in how to achieve the goals of the course.
13. I enjoyed completing the coursework.
14. I was capable of getting a high grade in this course.
15. The coursework was interesting to me.
16. The instructor was willing to assist me if I needed help in the course.
17. I had control over how I learned the course content.
18. Throughout the course, I felt that I could be successful on the coursework.
19. I found the coursework to be relevant to my future.
20. The instructor cared about how well I did in this course.
21. I will be able to use the knowledge I
gained in this course.
22. The instructor was respectful of me.
23. The knowledge I gained in this course is important for my future.
24. The instructor was friendly.
25. I believe that the instructor cared about my feelings.
26. I had flexibility in what I was allowed to do in this course.
27. Activitatea de la curs mi-a captat atenţia.
28. Am avut ocazia de a decide cum să ating obiectivele cursului.
29. În general, activitatea la curs mi-a fost utila.
30. Profesorul a avut disponibilitatea de a-mi răspunde la întrebările de la activităţile cursului.
31. Activitatea de la curs mi-a fost de folos.
32. Metodele de instruire utilizate în cadrul cursului mi-au captat atenţia
33. Am fost încrezător că voi avea succes la activitatile cursului.
34. Am avut libertatea de a finaliza activitatea de la curs aşa cum mi-am dorit.
35. Mi-au plăcut metodele de instruire utilizate la curs.
36. Am simțit că as putea să fac față cu succes provocărilor academice din acest curs.
37. Metodele de instruire m-au implicat în desfăşurarea cursului.
38. Am avut opţiuni asupra modului prin care să ating obiectivele cursului.
39. Mi-a făcut plăcere să realizez activitatea de la curs.
40. Am fost în stare să obţin o notă mare la acest curs.
41. Activitatea din cadrul cursului a fost interesantă pentru mine.
42. Profesorul a dorit să mă ajute ori de câte ori a fost nevoie.
43. Am avut controlul asupra modului cum am învăţat conținutul cursului.
44. Pe parcursul cursului am simţit că voi avea succes la activităţile cursului.
45. Am găsit activităţile cursului ca fiind relevante pentru viitorul meu.
46. Profesorului i-a păsat cât de bine am performat la curs.
47. Voi fi capabil să utilizez cunoştinţele obţinute în cadrul cursului.
48. Profesorul s-a purtat cu mine cu respect.
49. Cunoştinţele dobândite la curs sunt importante pentru viitorul meu.
50. Profesorul a fost prietenos.
51. Cred că profesorului i-a păsat de sentimentele mele.
52. Am avut flexibilitate în ceea ce mi s-a permis să fac la curs.

## MUSIC ${ }^{\circledR}$ Inventory (Spanish translation of the College Student version)

## Purpose

The purpose of the College Student version of the MUSIC Inventory is to measure the extent to which college students perceive the presence of each of the MUSIC model components in a college course. It can be used by professors to help them identify areas of strengths and weaknesses related to factors that affect students' motivation and engagement. The primary translator for this version was Juan M. Cruz.

## Instructions for Administering This Version

Please closely follow the instruction in the "Instructions for Administering the College Student version of the MUSIC Inventory" section of this document.

## Instructions for Scoring the MUSIC Inventory (College Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.
Empowerment score $=($ item $2+$ item $8+$ item $12+$ item $17+$ item 26) $/ 5$
Usefulness score $=($ item $3+$ item $5+$ item $19+$ item $21+$ item 23) $/ 5$
Success score $=($ item $7+$ item $10+$ item $14+$ item 18) $/ 4$
Interest score $=($ item $1+$ item $6+$ item $9+$ item $11+$ item $13+$ item 15 $) / 6$
Caring score $=($ item $4+$ item $16+$ item $20+$ item $22+$ item $24+$ item 25) $/ 6$
Other important notes:

- Do not sum or average all 26 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.


## Validity Evidence

The validity evidence for the use of the Spanish translation of this version of the MUSIC Inventory with college students is very good based on studies by Jones, Li, and Cruz (2017) and Jones, Khajavy, Li, Mohamed, and Reilly (2023). For example, in a sample of 201 undergraduate engineering students, Jones, Li, and Cruz (2017) reported Cronbach's alpha values of .88 for empowerment, .93 for usefulness, .91 for success, .95 for interest, and .92 for caring. Confirmatory factor analysis showed that the five-factor model fit the data well, as demonstrated by acceptable fit indices.

The inventory is provided on the following page.

Por favor califique los ítems de esta sección con la siguiente escala:

| 1 <br> Muy en <br> desacuerdo | 2 <br> En <br> desacuerdo | 3 <br> Parcialmente <br> en <br> desacuerdo | 4 <br> Parcialmente <br> de acuerdo | De acuerdo | 6 <br> Muy de <br> acuerdo |
| :---: | :---: | :---: | :---: | :---: | :---: |

Tenga en cuenta que la palabra actividades se refiere a todas las actividades que ha hecho en el curso incluyendo tareas, talleres, trabajos, proyectos, lecturas, etc.
$\qquad$ 1. Las actividades del curso me llaman la atención.
2. Tengo la oportunidad de decidir por mí mismo(a) cómo alcanzar los objetivos del curso.
$\qquad$ 3. En general, las actividades del curso son útiles.
4. El(la) profesor(a) está disponible para atender mis dudas relacionadas con las actividades del curso.
5. Las actividades del curso son beneficiosas para mí.
6. Me llaman la atención los métodos de enseñanza usados en este curso.
7. Confío en mi capacidad de realizar exitosamente las actividades del curso.
8. Tengo la libertad de realizar las actividades del curso a mi manera.
9. Disfruto los métodos de enseñanza utilizados en este curso.
10. Me siento en la capacidad de alcanzar los retos académicos del curso.
11. Los métodos de enseñanza me involucran (enganchan) activamente en el curso.
12. Tengo diferentes opciones para alcanzar los objetivos del curso.
13. Disfruto las actividades del curso.
14. Me consider capaz de obtener una alta calificación en este curso.
15. Las actividades del curso me parecen interesantes.
16. El(la) profesor(a) está dispuesto a ayudarme cuando lo(la) necesite.
17. Tengo control sobre cómo aprendo los contenidos del curso.
18. A lo largo del curso he sentido que puedo realizar con éxito las actividades.
19. Considero que las actividades son relevantes para mi futuro.
20. El(la) profesor(a) se preocupa por mi desempeño en el curso.
21. Seré capaz de usar los conocimientos adquiridos en este curso.
22. El(la) profesor(a) es respetuoso conmigo.
23. Los conocimientos adquiridos en este curso son importantes para mi futuro.
24. El(la) profesor(a) es amigable.
25. Creo que el(la) profesor(a) se preocupa por cómo me siento.
26. Es flexible lo que se me permite hacer en este curso.

# MUSIC ${ }^{\circledR}$ Inventory (Spanish translation of the Middle/High School Student version) 

## Purpose

The purpose of the Middle/High School Student version of the MUSIC Inventory is to measure the extent to which middle or high school students perceive the presence of each of the MUSIC model components in a class or other learning environment. It can be used by teachers to help them identify areas of strengths and weaknesses related to factors that affect students' motivation and engagement.

I developed this version of the MUSIC Inventory by selecting items from the College Student version of the MUSIC Inventory that were most appropriate for middle and high school students. The purpose of the Spanish translation of this inventory is to make it accessible to individuals who speak Spanish. The primary translator for this version was Juan M. Cruz.

## Instructions for Administering This Version

Please closely follow the instruction in the "Instructions for Administering the Middle/High School version of the MUSIC Inventory" section of this document.

## Instructions for Scoring the Middle/High School version of the MUSIC Inventory

To obtain a score for each scale, average the values for the items in the scales as shown below.

```
Empowerment score \(=(\) item \(5+\) item \(12+\) item \(16+\) item 18) / 4
Usefulness score \(=(\) item \(1+\) item \(9+\) item 13) / 3
Success score \(=(\) item \(2+\) item \(4+\) item \(7+\) item 10) \(/ 4\)
Interest score \(=(\) item \(6+\) item \(8+\) item 17 \() / 3\)
Caring score \(=(\) item \(3+\) item \(11+\) item \(14+\) item 15) \(/ 4\)
```

Other important notes:

- Do not sum or average all 18 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.


## Validity Evidence

I have not used the Spanish translation of the MUSIC Inventory with middle/high school students. However, there is validity evidence for the middle/high school version in English and for the college version in Spanish (and this version is based on that Spanish translation (see those sections of this document). Therefore, I believe that these scales should be valid as well, although this cannot be confirmed until it is used for that purpose.

The inventory is provided on the following page.

## MUSIC Inventory (Middle/High School Student version, Spanish translation)

Por favor califique los ítems de esta sección con la siguiente escala:

| 1 <br> Muy en <br> desacuerdo | 2 <br> En <br> desacuerdo | 3 <br> Parcialmente <br> en <br> desacuerdo | 4 <br> Parcialmente <br> de acuerdo | De acuerdo | 6 <br> Muy de <br> acuerdo |
| :---: | :---: | :---: | :---: | :---: | :---: |

Tenga en cuenta que la palabra actividades se refiere a todas las actividades que ha hecho en el curso incluyendo tareas, talleres, trabajos, proyectos, lecturas, etc.
$\qquad$ 1. Los conocimientos adquiridos en este curso son importantes para mi futuro.
2. Confío en mi capacidad de realizar exitosamente las actividades del curso.
3. El(la) profesor(a) se preocupa por mi desempeño en el curso.
4. Me consider capaz de obtener una alta calificación en este curso.
5. Tengo la libertad de realizar las actividades del curso a mi manera.
6. Las actividades del curso me parecen interesantes.
7. Me siento en la capacidad de alcanzar los retos académicos del curso.
8. Disfruto las actividades del curso.
9. En general, las actividades del curso son útiles.
10. A lo largo del curso he sentido que puedo realizar con éxito las actividades.
11. El(la) profesor(a) es amigable.
12. Es flexible lo que se me permite hacer en este curso.
13. Considero que las actividades son relevantes para mi futuro.
14. El(la) profesor(a) está dispuesto a ayudarme cuando lo(la) necesite.
15. El(la) profesor(a) es respetuoso conmigo.
16. Tengo control sobre cómo aprendo los contenidos del curso.
17. Las actividades del curso me llaman la atención.
18. Tengo diferentes opciones para alcanzar los objetivos del curso.

# MUSIC ${ }^{\circledR}$ Inventory (Turkish translation of the College Student version, present tense) 

## Purpose

The purpose of the Turkish translation of College Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Turkish. Dr. Sumeyra Sahbaz conducted the initial translation of some of the items and edited the final version of this translation. Dr. Ebru Tuncer Boon (a faculty member at Dokuz Eylül University, in İzmir, Turkey) translated some of the items for the middle/high school version and parts of those items were also used in this version. The items were back-translated to English by Sumeyra Sahbaz (except for the items she translated initially), Dr. Esma Turgut, and Sehmuz Akalin. Brett Jones checked the back-translation, which resulted in a minor edit to one of the items.

## Instructions for Administering This Version

Please closely follow the instruction in the "Instructions for Administering the College Student version of the MUSIC Inventory" section near the beginning of this document.

## Validity Evidence

Şeyda Uçar Karan is using this version of the MUSIC Inventory in Turkey. This research is ongoing, and we have no evidence yet that the translation is valid for use in Turkey. However, because it is a direct translation of the English version of the MUSIC Inventory, it is likely that this version will demonstrate acceptable validity as well.

## Instructions for Scoring the MUSIC Inventory (College Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.

```
Empowerment score = (item 2 + item 8 + item 12+ item 17 + item 26) / 5
Usefulness score = (item 3+item 5+item 19+ item 21 + item 23) / 5
Success score = (item 7 + item 10 + item 14 + item 18) / 4
Interest score = (item 1 + item 6 + item 9 + item 11 + item 13 + item 15) / 6
Caring score = (item 4 + item 16 + item 20 + item 22+item 24 + item 25) / 6
```

Other important notes:

- Do not sum or average all 26 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.

The inventory is provided on the following page.

## Yönerge

Aşağıdaki maddelerde geçen ders ve eğitmen kelimeleri bu ders ve dersin eğitmeni hakkındadir. Aşağıdaki ifadelerde geçen "calışmalar" kelimesi derste yapılan her türlü ödev, aktivite, okumalar ve benzeri çalışmaları içerir.

Bu sorulara verilen cevaplar doğru veya yanlış diye sınıflandırılamaz. Lütfen dürüsce cevap veriniz. Bazı sorular tekrar gibi görünsede, bütün soruları cevaplamanız en iyi sonuçlara ulaşmamızı sağlıcaktır.

Lütfen 1'den 6'ya kadar olan seçeneklerden birini soruların yanındaki kutuya yazınız.

| 1 <br> Kesinlikle <br> katılııyorum | 2 <br> Katılmıyorum | 3 <br> Kısmen <br> katılmıyorum | 4 <br> Kısmen <br> katılıyorum | 5 <br> Katılıyorum | 6 <br> Kesinlikle <br> katılıyorum |
| :---: | :---: | :---: | :---: | :---: | :---: |

$\qquad$ 1. Dersteki çalışmalar ilgimi canlı tutar.
$\qquad$ 2. Dersin hedeflerine nasıl ulaşacağım konusunda karar verme özgürlüğüm var.
$\qquad$ 3. Dersteki çalışmalar benim için genellikle yararııdır.
4. Dersin eğitmeni ders hakkindaki sorularımı cevaplamak üzere hazır ve ulaşılır.
5. Dersteki çalışmalar benim için faydalıdır.
6. Derste kullanılan öğretme yontemleri ilgimi canlı tutuyor.
7. Derste başarılı olacağıma inanıyorum.
8. Dersteki çalışmalarımı istediğim yolla tamamlama özgürlüğüm vardır.
9. Derste kullanılan öğretme yöntemleri hoşuma gidiyor.
$\qquad$ 10. Dersteki akademik zorlukları karşılamada başarılı olabileceğimi düşünüyorum.
11. Derste kullanılan öğretme yöntemleri derse katilmami sağlıyor.
12. Dersin hedeflerine nasıl ulaşacağım konusunda seçeneklerim vardır.
13. Dersin çalışmalarıni bitirmekten zevk alırım.
$\qquad$
14. Dersten yüksek not almak icin yeterince iyim.
$\qquad$ 15. Dersin çalışmalari benim için ilginçtir.
$\qquad$ 16. Derste yardıma ihtiyaç duyduğum zaman egitmen bana yardımcı olmaya isteklidir.
$\qquad$ 17. Derste işlenen konuyu nasıl öğreneceğime karar verebilirim.
$\qquad$ 18. Ders boyunca sınıf çalışmalarında başarılı olacağımı hissederim.
19. Dersteki çalışmaları geleceğimle alakalı buluyorum.
$\qquad$ 20. Dersin egitmeni derste ne kadar iyi olduğuma önem verir.
21. Derste öğrendigim bilgileri kullanabileceğim.
22. Dersin egitmeni bana saygılıdır.
23. Derste kazandığım bilgiler geleceğim için önemlidir.
24. Dersin egitmeni cana yakındır.
25. Dersin eğitmeninin his ve duygularımı önemsediğine inanıyorum.
26. Derste yapmam gerekenler arasından seçme şansım vardır.

## MUSIC ${ }^{\circledR}$ Inventory (Turkish translation of the Middle/High School version)

## Purpose

The purpose of the Turkish translation of the Middle/High School Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Turkish. The initial translator for this version was Dr. Ebru Tuncer Boon, a faculty member at Dokuz Eylül University, in İzmir, Turkey. It was back-translated to English by Dr. Sumeyra Sahbaz and Sehmuz Akalin. Brett Jones checked the back-translation, which resulted in a minor edit to one of the items. In February 2023, some minor wording changes were made based on suggestions by Zeynep Ambarkutuk and Hande Fenerci.

## Instructions for Administering This Version

Please closely follow the instruction in the "Instructions for Administering the Middle/High School version of the MUSIC Inventory" section of this document.

## Validity Evidence

Ebru Tuncer Boon is using this version of the MUSIC Inventory in Turkey. This research is ongoing and we have no evidence yet that the translation is valid for use in Turkey. However, because it is a direct translation of the English version of the MUSIC Inventory, it is likely that this version will demonstrate acceptable validity as well.

## Instructions for Scoring the MUSIC Inventory (Middle/High School Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.

```
Empowerment score \(=(\) item \(5+\) item \(12+\) item \(16+\) item 18) / 4
Usefulness score \(=(\) item \(1+\) item \(9+\) item 13) \(/ 3\)
Success score \(=(\) item \(2+\) item \(4+\) item \(7+\) item 10) \(/ 4\)
Interest score \(=(\) item \(6+\) item \(8+\) item 17) \(/ 3\)
Caring score \(=(\) item \(3+\) item \(11+\) item \(14+\) item 15) \(/ 4\)
```

Other important notes:

- Do not sum or average all 18 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.

The inventory is provided on the following page.

## Yönerge

Aşağıda bulunan 18 soru şu anda aldığınız FEN BiLíMLERI DERSi VE FEN BILIMLERİ ÖĞRETMENi ile ilgilidir.

Lütfen 1'den 6'ya kadar olan seçeneklerden birini soruların yanındaki kutuya yazınız.

| 1 <br> Kesinlikle <br> katılmıyorum | 2 <br> Katılmıyorum | 3 <br> Kısmen <br> katılmıyorum | 4 <br> Kısmen <br> katılıyorum | 5 <br> Katılıyorum | Kesinlikle <br> katılıyorum |
| :---: | :---: | :---: | :---: | :---: | :---: |

$\qquad$ 1. Fen bilimleri dersinde edindigim bilgiler gelecegim icin onemlidir.
$\qquad$ 2. Fen bilimleri dersinde başarılı olacağıma inanıyorum.
3. Fen bilimleri öğretmenim fen bilimleri dersinde ne kadar iyi olduğuma önem verir.
4. Fen bilimleri dersinden yüksek not almaya yeterliyim.
5. Fen bilimleri dersindeki çalışmalarımı istediğim yolla tamamlama özgürlüğüm vardır.
6. Fen bilimleri dersindeki çalışmalar benim için ilginçtir.
7. Fen bilimleri dersindeki akademik zorlukların başarılı bir şekilde üstesinden gelebileceğimi düşünüyorum.
$\qquad$ 8. Fen bilimleri dersinde sınıf çalışmalarına katılmaktan zevk alırım.
$\qquad$ 9. Genellikle, fen bilimleri dersindeki çalışmalar benim için yararııdır.
$\qquad$ 10. Fen bilimleri dersi boyunca, sınıf çalışmalarında başarılı olacağımı hissederim.
$\qquad$ 11. Fen bilimleri öğretmenim cana yakındır.
12. Fen bilimleri dersinde yapmam gerekenler arasından seçme şansım vardır.
13. Fen bilimleri dersindeki çalışmaları geleceğimle alakalı buluyorum.
$\qquad$ 14. Fen bilimleri dersinde yardıma ihtiyaç duyduğum zaman öğretmenim bana yardımcı olmaya isteklidir.
$\qquad$ 15. Fen bilimleri öğretmenim bana karşı saygılıdır.
$\qquad$ 16. Fen bilimleri dersinde işlenen konuyu nasıl öğrendiğim üzerinde kontrole sahibim.
17. Fen bilimleri dersindeki çalışmalar ilgimi canlı tutar.
18. Fen bilimleri dersinde belirlenen hedeflere nasıl ulaşacağıma dair seçeneklerim vardır.

# MUSIC ${ }^{\circledR}$ Inventory (Cognitive Training version for clients) 

## Purpose

The purpose of the Cognitive Training version for clients is to measure the extent to which clients perceive the presence of each of the MUSIC model components in a clinical environment. It can be used by clinicians to help them identify areas of strengths and weaknesses related to factors that affect clients' motivation and engagement while participating in cognitive training sessions intended to provide cognitive remediation for patients with psychological disorders (see Medalia, Revheim, \& Herlands, 2009, for examples of the types of clinics to which I am referring).

This version of the MUSIC Inventory is almost identical to the Middle/High School Student version of the MUSIC Inventory except that I worked with Dr. Alice Medalia and Marie Hansen at Columbia University to change the wording of the items to make them appropriate for use with patients in clinical settings.

## Instructions for Administering the Cognitive Training version of the MUSIC Inventory

- Title the inventory as general as possible, such as "Cognitive Training Questionnaire," and delete the title text above the words "Completed by" in the examples on the following pages. Titling the inventory as "motivation" or something similar could affect clients' responses because of their preconceived notions of this word.
- Order the items randomly. The versions in this guide are already ordered randomly and can be used in the order shown. But if you administer the inventory online and your online survey software has the feature, I recommend that you have the software randomize the questions differently for each student.
- For the 1 to 6 rating scale, provide each number along with the associated description (e.g., 1 = disagree). The scale is presented correctly in this guide.
- The items are worded in the present tense if the inventory is administered at the beginning or middle of the cognitive training sessions. For example, if the sessions occur once a week for 40 weeks, then the present tense version could be administered at the end of Week 1 or any week thereafter until Week 40. The past tense version should be used near the end of the sessions, around Week 39 or 40 . Both of these versions are presented on the following pages.
- Do not interpret any of the items for the clients, they must make their own interpretation of the items. If they ask you what an item means, say something like: "Answer it based on whatever you think it means."
- Responses can be collected through online survey software (e.g., Survey Monkey, Qualtrics) or on a paper version of the inventory. Studies have not been conducted to determine how the format of the items (online versus paper) affects students' responses. Avoid displaying the numbers and labels in ways that present them as different distances apart because the distance between the items is assumed to be equal (e.g., the distance from 1 to 2 is assumed to be the same as the distance from 4 to 5). As an example, when spaced horizontally, avoid having the spacing width of the option for " $1=$ Strongly Disagree" larger than the width for the option for " 2 = Disagree" because there are more letters in the "Strongly Disagree" label. Make the column widths for the options the same. If you administer it online, I recommend avoiding this issue by presenting the options vertically as shown here because the distance between the rows is equal.

```
The instructor is respectful of me.
○ \(1=\) Strongly Disagree
○ \(2=\) Disagree
○ \(3=\) Somewhat Disagree
○ \(4=\) Somewhat Agree
○ \(5=\) Agree
○ \(6=\) Strongly Agree
```

To complement the scores from the MUSIC Inventory, clinicians can administer open-ended items to clients, such as those provided below. There is one item for each of the MUSIC model components. These items are based on similar questions from Jones et al. (2012).

1. What could be changed in this training to make you feel you had more control over your learning?
2. What could be changed in this training to make it more useful to you?
3. What could be changed in this training to help you feel you could be more successful in it?
4. What could be changed in this training to make it more interesting and enjoyable?
5. What could be changed in this training to make you feel that the coach cares about whether you succeed at your goals?

## Validity Evidence

The Cognitive Training version for clients has been used in the U.S. and translated to Danish and Japanese. We have published articles using data from several clinical sites and found that the scores produced from this version are valid for use with this population.

- Hansen, M. C., Jones, B. D., Eack, S. M., Glenthoj, L. B., Ikezawa, S., Iwane, T., ...Medalia, A. (2019). Validation of the MUSIC Model of Motivation Inventory for use with cognitive training for schizophrenia spectrum disorders: A multinational study. Schizophrenia Research, 206, 142148. https://doi.org/10.1016/j.schres.2018.11.037
- Cronbach's alpha values for the entire sample ( $n=181$ ) were .81 for empowerment, .81 for usefulness, .88 for success, .85 for interest, and .85 for caring.
- Saperstein, A. M., Jones, B. D., Hansen, M. C., \& Medalia, A. (2020). The Cognitive Training version of the MUSIC ${ }^{\circledR}$ Model of Motivation Inventory: A follow-up validity study. Schizophrenia Research, 216, 516-519. https://doi.org/10.1016/i.schres.2019.12.027

The inventory is provided on the following pages.

## MUSIC Inventory (Cognitive Training version for clients, present tense)

(to be administered near the beginning or middle of the cognitive training sessions)
Completed by: $\qquad$ Date: $\qquad$

## Directions

These items ask about your experience in COGNITIVE TRAINING up to this point. Consider everything you do in cognitive training when selecting your answer including cognitive exercises, discussion, and talking with the instructor. There are no right or wrong answers - we are only interested in your honest opinion.

The questions ask you to select a number for your answer. Please circle the number that best describes what you believe about each statement.

1. The skills I gain in Cognitive Training are important for my future.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

2. I am confident I can succeed in Cognitive Training activities.

| 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |

3. My Cognitive Training instructor cares about how well I do.

| 1 | 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Strongly <br> Disagree | 3 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |

4. I am capable of doing well in the activities during Cognitive Training.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

5. I have the freedom to work on the activities in Cognitive Training in my own way.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

6. The Cognitive Training activities are interesting to me.

| 1 | 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Strongly <br> Disagree | 3 <br> Disagree | 4 <br> Somewhat <br> Disagree | 5 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |

7. I feel that I can be successful at meeting the cognitive challenges in Cognitive Training.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

8. I enjoy completing the activities in Cognitive Training.

| 1 | 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Strongly <br> Disagree | 3 <br> Disagree | 4 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |

9. In general, Cognitive Training activities are useful to me.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

10. During Cognitive Training, I feel that I can be successful in the activities.

| 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |

11. My Cognitive Training instructor is friendly.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

12. I have choices in what I am allowed to do in Cognitive Training.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

13. I find Cognitive Training to be relevant for what I want to do in the future.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

14. My Cognitive Training instructor is willing to assist me if I need help.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

15. My Cognitive Training instructor is respectful of me.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

16. I have control over the way I practice skills in Cognitive Training.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

17. The Cognitive Training activities hold my attention.

| 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |

18. I have options in how to achieve better cognitive skills in Cognitive Training.

| 1 | 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Strongly <br> Disagree | 3 <br> Disagree | 4 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |

## MUSIC Inventory (Cognitive Training version for clients, past tense)

(to be administered near the end of the cognitive training sessions)

Completed by: $\qquad$ Date: $\qquad$

## Directions

These items ask about your experience in the COGNITIVE TRAINING up to this point. Consider everything you have done in cognitive training when selecting your answer including cognitive exercises, discussion, and talking with the instructor. There are no right or wrong answers - we are only interested in your honest opinion.

The questions ask you to select a number for your answer. Please circle the number that best describes what you believe about each statement.

1. The skills I gained in Cognitive Training are important for my future.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

2. I was confident that I could succeed in Cognitive Training activities.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

3. My Cognitive Training instructor cared about how well I did in Cognitive Training.

| 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |

4. I felt capable of doing well in the activities during Cognitive Training.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

5. I had the freedom to work on the activities in Cognitive Training in my own way.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

6. The Cognitive Training activities were interesting to me.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

7. I felt that I could be successful at meeting the cognitive challenges in Cognitive Training.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

8. I enjoyed completing the activities in Cognitive Training.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

9. In general, the Cognitive Training activities were useful to me.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

10. During Cognitive Training, I felt that I could be successful in the activities.

| 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |

11. My Cognitive Training instructor was friendly.

| 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |

12. I had choices in what I was allowed to do in Cognitive Training.

| 1 | 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Strongly <br> Disagree | 3 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |

13. I found Cognitive Training to be relevant for what I want to do in the future.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

14. My Cognitive Training instructor was willing to assist me if I needed help during the activities.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

15. My Cognitive Training instructor was respectful of me.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

16. I had control over the way I practiced skills in Cognitive Training.

| 1 <br> Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

17. The Cognitive Training activities held my attention.

| 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Strongly <br> Disagree | 2 <br> Disagree | 3 <br> Somewhat <br> Disagree | 4 <br> Somewhat <br> Agree | 5 <br> Agree | 6 <br> Strongly <br> Agree |

18. I had options in how to achieve better cognitive skills in Cognitive Training.

| 1 | 2 <br> Strongly <br> Disagree | 3 <br> Disagree | 4 <br> Somewhat <br> Disagree | 5 <br> Somewhat <br> Agree | 5 <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Strongly <br> Agree |  |  |  |  |  |

Score each MUSIC component by averaging the values from each item in the scale to produce a mean for the scale. For example, the "usefulness" score $=($ item $1+$ item $9+$ item 13) / 3

- eMpowerment $=5,12,16,18$
- Usefulness = 1, 9, 13
- Success = 2, 4, 7, 10
- Interest (situational) $=6,8,17$
- Caring $=3,11,14,15$


## Other important notes:

- Do not sum or average all 18 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a person is highly motivated and engaged when he or she is high on only one or two of the MUSIC components and low on the others.

| Scales | Items by Scale |
| :---: | :---: |
| Empowerment (4 items) | - I have the freedom to work on the activities in Cognitive Training in my own way. <br> - I have choices in what I am allowed to do in Cognitive Training. <br> - I have control over the way I practice skills in Cognitive Training. <br> - I have options in how to achieve better cognitive skills in Cognitive Training. |
| Usefulness (3 items) | - The skills I gain in Cognitive Training are important for my future. <br> - In general, the Cognitive Training activities are useful to me. <br> - I find Cognitive Training to be relevant for what I want to do in the future. |
| Success (4 items) | - I am confident I can succeed in Cognitive Training activities. <br> - I am capable of doing well in the activities during Cognitive Training. <br> - I feel that I can be successful at meeting the cognitive challenges in Cognitive Training. <br> - During Cognitive Training, I feel that I can be successful in the activities. |
| Interest (3 items) | - The Cognitive Training activities are interesting to me. <br> - I enjoy completing the activities in Cognitive Training. <br> - The Cognitive Training Group activities hold my attention. |
| Caring (4 items) | - My Cognitive Training instructor cares about how well I do in the group. <br> - My Cognitive Training instructor is friendly <br> - My Cognitive Training instructor is willing to assist me if I need help. <br> - My Cognitive Training instructor is respectful of me. |

# MUSIC ${ }^{\circledR}$ Inventory (Cognitive Training version for clinicians) 

## Purpose

The purpose of the Cognitive Training version for clinicians is to measure the extent to which clinicians believe that clients perceive the presence of each of the MUSIC model components in the cognitive training sessions. The clinician version is different from the client version of the inventory because it is administered to the clinician instead of the client (clinicians can administer it to themselves). I use the term "clinician" for this version as a broad term to include clinicians, therapists, assistants, and anyone who is involved in implementing the training for clients.

The clinician version can be used to identify areas of strengths and weaknesses related to factors that affect clients' motivation and engagement. It is intended to be used as a reflection tool along with other sources of data, such as the client version of the MUSIC Inventory. The items are almost identical to the client version except I changed the wording to make them appropriate for a clinician to answer.

## Instructions for Administering the Clinician version of the MUSIC Inventory

The instructions for this version are the same as the instructions provided above in the section titled "Instructions for Administering the Cognitive Training version of the MUSIC Inventory."

## Validity Evidence

The clinician version of the MUSIC Inventory is intended to be used as a reflection tool by the clinician and has not yet been validated for research purposes (although research is in process).

The inventory is provided on the following page.

## MUSIC Inventory (Cognitive Training version for clinicians)

## Directions

Think of a cognitive training group for which you want to assess clients' motivation. Consider everything that is done in the group when selecting your answer, including cognitive exercises, discussion, and talking with the instructor. (The term "instructor" is used to denote the person or people leading the group. You may or may not be the instructor for the group you are about to rate now.)
There are no right or wrong answers, we are only interested in your honest opinion. Respond to the items below in relation to one Cognitive Training group using this scale:

| 1 <br> Strongly <br> disagree | 2 <br> Disagree | 3 <br> Somewhat <br> disagree | 4 <br> Somewhat <br> agree | 5 <br> Agree | 6 <br> Strongly <br> agree |
| :---: | :---: | :---: | :---: | :---: | :---: |

## Clients believe that:

$\qquad$ 1. the skills they gain in Cognitive Training are important for their future.
$\qquad$ 2. they are confident that they can succeed in the Cognitive Training activities.
$\qquad$ 3. the Cognitive Training instructor cares about how well they do.
$\qquad$ 4. they are capable of doing well in the activities during Cognitive Training.
$\qquad$ 5. they have the freedom to work on the activities in Cognitive Training in their own way.
$\qquad$ 6. the Cognitive Training activities are interesting.
$\qquad$ 7. they can be successful at meeting the cognitive challenges in Cognitive Training.
$\qquad$ 8. they enjoy completing the activities in Cognitive Training.
$\qquad$ 9. in general, Cognitive Training activities are useful to them.
$\qquad$ 10. during Cognitive Training, they can be successful in the activities.
11. the Cognitive Training instructor is friendly.
12. they have choices in what they are allowed to do in Cognitive Training.
13. they find Cognitive Training to be relevant for what they want to do in the future.
14. the Cognitive Training instructor is willing to assist them if they need help.
15. the Cognitive Training instructor is respectful of them.
16. they have control over the way they practice skills in Cognitive Training.
17. the Cognitive Training activities hold their attention.
18. they have options in how to achieve better cognitive skills in Cognitive Training.

## Instructions for Scoring the MUSIC Inventory (Cognitive Training version for clinicians)

Score each MUSIC component by averaging the values from each item in the scale to produce a mean for the scale. For example, the "usefulness" score $=$ (item $1+$ item $9+$ item 13) $/ 3$

- $\quad$ eMpowerment $=5,12,16,18($ $\qquad$ $+$ $\qquad$ $+$ $\qquad$ $+$ $\qquad$ ) $/ 4=$ $\qquad$
- Usefulness = 1, 9, 13 $\qquad$ $+$ $\qquad$ $+$ $\qquad$ ) $/ 3=$ $\qquad$
- Success $=2,4,7,10$ $\qquad$ $+$ $\qquad$ $+$ $\qquad$ $+$ $\qquad$ ) $/ 4=$ $\qquad$
- Interest =6, 8, 17 $\qquad$ $+$ $\qquad$ $+$ $\qquad$ ) $/ 3=$ $\qquad$
- Caring $=3,11,14,15($ $\qquad$ $+$ $\qquad$ $+$ $\qquad$ $+$ $\qquad$ ) $/ 4=$ $\qquad$
Look at your scores for each MUSIC component. Higher numbers indicate that your instruction is more consistent with the strategies related to those MUSIC components. Lower numbers indicate that you may be able to implement more strategies consistent with those MUSIC components. These results cannot be interpreted precisely. Instead, they're intended to help you diagnose areas of possible strengths and weaknesses. So obviously, also use your beliefs about your instructional strengths and weaknesses related to clients' MUSIC perceptions. To corroborate your beliefs, you can assess clients' perceptions by asking students to complete the client version of the MUSIC Inventory.


## Other important notes:

- Do not sum or average all 18 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a person is highly motivated and engaged when he or she is high on only one or two of the MUSIC components and low on the others.


## Open-Ended Questions for Students

## Where did these open-ended questions for students come from?

This section includes questions from different studies in which the researchers surveyed students about their perceptions related to the components of the MUSIC Model of Motivation (Jones, 2009, 2018). There is no one "correct" way to ask students about their perceptions related to the MUSIC model; therefore, you can alter these questions in any way that makes sense for your purposes. I have found that the questions labeled \#1 below (the ones that ask about change) are the most useful for getting ideas that can be used to redesign instruction.

If the questions you use are the same as, or similar to, the questions from the study below and you present or publish the results, please cite the study. The questions without citations were created by me for this User Guide.

## Empowerment

1. What could be changed in this course to make you feel you had more choices in the course? (Jones et al., 2012, although the original question used the word "control" instead of "choices)
2. What choices did you have during the course (or activity)?
3. Which aspects of this course give you control over this course? (Jones et al., 2012)

## Usefulness

1. What could be changed in this course to make it more useful to you? (Jones et al., 2012)
2. What do you find useful about this course (or activity)?

## Success

1. What could be changed in this course to help you feel you could be more successful in it? (Jones et al., 2012)
2. What makes you feel successful in this course?
3. What makes you feel as though you cannot be successful in this course?

## Interest

1. What could be changed in this course to make it more interesting and enjoyable? (Jones et al., 2012)
2. What do you like about this course?
3. What do you find interesting about this course?
4. Which parts of this course are boring?

## Caring

1. What could be changed in this course to make you feel that the instructor or other students care about whether you learn the course content and care about you as a person?
2. What could be changed in this course to make you feel that the instructor cares about whether you learn the course content and do well in the course? (Jones et al., 2012)
3. What does the instructor do to provide you with the impression that she cares about whether you learn the course content and do well in the course? (Jones et al., 2012)
4. What does the instructor do to provide you with the impression that she cares about you as a person? (Jones et al., 2012)

## Effort

1. Two questions: How much effort do you put into this course? Why do you put this amount of effort into this course? (Jones, Byrnes, \& Jones, 2019)

- The first question is asked simply to get students thinking about how much effort they put into the course. Typically, we do not code the responses to the first question because we have already collected that information with the quantitative Course Effort scale. We code the responses to the second question. For examples, see Jones, Byrnes, and Jones (2019) and Jones, Krost, and Jones (2021).


## Interview Questions for Students

## Where did these interview questions for students come from?

This section includes questions from different studies in which the researchers interviewed students about their perceptions related to the components of the MUSIC Model of Motivation (Jones, 2009). There is no one "correct" way to ask students about their perceptions related to the MUSIC model; therefore, you can alter these questions in any way that makes sense for the objectives of your interviews. The studies had different purposes which is why the questions from each study are slightly different. Use the questions that allow you to best meet your objectives.

If the questions you use are the same as, or similar to, the questions from a study below and you present or publish the results, please cite the study.

## STUDY 1 - The following questions are from:

- Evans, M. A., Jones, B. D., \& Akalin, S. (2017). Using video game design to motivate students. Afterschool Matters, 26, 18-26. https://www.niost.org/Afterschool-Matters-Fall-2017/using-video-game-design-to-motivate-students

NOTE: The word "activity" can be substituted with the specific activity that a student is working on.

## Empowerment

- How much control do you have over what you're working on? (How much do you feel like you are doing what you want to be doing during this activity?)
a. What things do you have control over?


## Usefulness

- How useful is this activity for your goals this year or in the future?
a. In what ways is it useful?


## Success

- How successful do you think that you will be at this activity?
a. (If needed): Why?


## Situational Interest

- How interested are you in working on this activity? (How much do you enjoy this activity?)
a. What about it interests you?


## Individual Interest

- How important is this activity to you?
a. Why is it important?


## Academic Caring (teacher)

- How much does your teacher want you to succeed at this activity? (How much does your teacher like to help you on this activity?)
a. How do you know?


## Personal Caring (teacher)

- How much does your teacher care about you?
a. How do you know?


## Academic Caring (other students)

- How much do other students want you to succeed at this activity?
a. How do you know?


## Personal Caring (other students)

- How much do other students care about you?
a. How do you know?


## STUDY 2 - The following questions are from:

- Jones, B. D., Epler, C. M., Mokri, P., Bryant, L. H., \& Paretti, M. C. (2013). The effects of a collaborative problem-based learning experience on students' motivation in engineering capstone courses. Interdisciplinary Journal of Problem-based Learning, 7(2).
https://doi.org/10.7771/1541-5015.1344


## eMpowerment

- As you worked on your project, what aspects of the project were you able to control?
- What types of decisions did your group make in regards to how your group functioned?
- What was the result of those decisions?
- What types of decisions did your advisor make for you?


## Usefulness

- How will what you are learning in this group project be useful to your short-term goals? Longterm goals?
- Was working within a collaborative group a realistic simulation of a real-world work experience? Please describe.


## Success

- What aspects of this project make you feel competent? Overwhelmed? Bored?
- Describe the feedback you have received from the instructor and your advisor on this project.
- How does that differ from the feedback you received from your group members?
- What feedback has contributed most to your success?
- Do you believe that working within a group made this project easier or more challenging? Please explain.


## Interest

- How did your group determine the topic you selected?
- Describe your initial interest in the project.
- How did working in a group influence your interest in the project?
- Describe your interest in the project now.
- Has this changed? If yes, what caused the change?
- Are the ideas and/or topics in this project really important to you? Please explain what makes them important to you.
- That is, do you care about the ideas, issues, and/or topics involved in this project?


## Caring

- Describe your group's dynamics.
- Describe how you interacted with your group members.
- What would you change about the dynamics of your group?
- Describe your group's relationship with your advisor.
- What role did your project's advisor play?
- How does your advisor show respect and concern for your group?
- What would you change about the role of your advisor?


## STUDY 3 - The following questions are from:

- Jones, B. D., Chittum, J. R., Akalin, S., Schram, A. B., Fink, J., Schnittka, C.,...Brandt, C. (2015). Elements of design-based science activities that affect students' motivation. School Science and Mathematics, 115(8), 404-415. https://doi.org/10.1111/ssm. 12143

NOTE: The title "Studio STEM" can be substituted with another program or the specific activity that the students worked on.

## eMpowerment

- What choices did you have in Studio STEM?


## Usefulness (for short-term goals)

- What have you done in Studio STEM that's useful to your life right now?


## Success

- What made you feel that you could be successful in Studio STEM?


## Interest

- What was interesting about the presentations?


## Caring

- How did the instructors show that they cared about your success in Studio STEM?


## Interview Questions for Teachers

## Where did these interview questions for teachers come from?

The questions in this section are intended to be asked to teachers. They were created by Jones (2009) for instructors to use to begin thinking about their teaching. However, they could be used just as well during an interview with a teacher.

## QUESTIONS - The following questions are from:

- Jones, B. D. (2009). Motivating students to engage in learning: The MUSIC Model of Academic Motivation. International Journal of Teaching and Learning in Higher Education, 21(2), 272-285. https://www.isetl.org/ijthe/pdf/IJTLHE774.pdf
eMpowerment

1. Do you feel that students have control over some aspects of their learning?
a. Do they have choices about what they can do?
2. Do you believe, as their teacher, that you empower them to learn the material and do not try to manipulate their behavior?

Usefulness

1. Do you believe that students understand why your lessons are useful to their interests, to their career goals, and/or in the "real-world"?

Success

1. Do you believe that your lessons clearly state your expectations for them?
2. Do you think the learning activities are challenging in that they are not too hard or easy?
3. Do you provide regular feedback about their level of competence?
a. (Another way to say this: How do they know how well they're doing?)
4. Do they believe that they can succeed?
a. Do you feel that the lessons create a belief that they can succeed if they put forth the effort?
Interest
5. Do you feel that students are interested in the lessons?

Caring

1. Do you feel that the students believe that you care about whether they achieve the objectives of the lesson?
2. Do you feel that the students believe that you care about their well-being?

## Other Items and Scales

This section includes items and scales that are sometimes used in combination with the MUSIC Inventory, including overall instructor rating, overall course rating, course effort scale, and ease of course scale.

## Overall Instructor Rating and Overall Course Rating

These are two separate items and should NOT be combined into a scale.

## Citation

Jones, B. D. (2010). An examination of motivation model components in face-to-face and online instruction. Electronic Journal of Research in Educational Psychology, 8(3), 915-944.
http://www.investigacion-psicopedagogica.com/revista/articulos/22/english/Art 22 499.pdf

- Also used in many other studies.


## Overall Instructor Rating

This one item measures students' overall rating of the instructor in a course. The item was modeled after similar items typically used by universities in end-of-course evaluations.

1. My overall rating of the instructor for this course.

1 = terrible
2 = very poor
3 = poor
4 = good
5 = very good
$6=$ excellent

## Spanish Translation

1. Mi calificación general del instructor del curso.

1 = Terrible
2 = Muy pobre
3 = Pobre
4 = Bueno
5 = Muy bueno
6 = Excelente

## Overall Course Rating

This one item measures students' overall rating of a course. The item was modeled after similar items typically used by universities in end-of-course evaluations.

1. My overall rating of the course.

1 = terrible
2 = very poor
3 = poor
4 = good
5 = very good
$6=$ excellent

## Spanish Translation

1. Mi calificación general del curso.

$$
1 \text { = Terrible }
$$

$2=$ Muy pobre
3 = Pobre
4 = Bueno
5 = Muy bueno
6 = Excelente
Validity and Reliability information
Because these ratings are single items (as opposed to scales with more than one item), alpha values cannot be computed. Therefore, internal consistency reliability cannot be assessed. However, criterion-related validity evidence can be assessed by examining the correlations between these items and the MUSIC Inventory scales.

The correlations between the MUSIC scales and instructor ratings and course ratings typically represent medium to large effect sizes:

- Pearson correlation coefficients $(r)$ ranged from .41 to .69 for instructor ratings and .55 to .73 for course ratings (Jones \& Skaggs, 2016)
- Pearson correlations coefficients ( $r$ ) ranged from .44 to .70 for instructor ratings and .49 to .63 for course ratings (Wilkins et al., 2021, student-level variables)
- Pearson correlations coefficients $(r)$ ranged from .41 to .62 for instructor ratings and .42 to .72 for course ratings (Jones, Miyazaki, et al., 2022, student-level variables)
- Pearson correlation coefficients $(r)$ ranged from .13 to .68 for course ratings (Jones, Byrnes, \& Jones, 2019)


## Course Effort scale

This 4-item Course Effort scale measures the amount of effort that students believe that they are putting forth in a course. The items are averaged to compute a students' score.

## Citation

Jones, B. D. (2019). Testing the MUSIC Model of Motivation Theory: Relationships between students' perceptions, engagement, and overall ratings. The Canadian Journal for the Scholarship of Teaching and Learning, 10(3), 1-15. https://doi.org/10.5206/cjsotlrcacea.2019.3.9471

Students respond to all 4 items using the following Likert-format scale:
1 = strongly disagree
2 = disagree
3 = somewhat disagree
4 = somewhat agree
5 = agree
6 = strongly agree

## Present tense version

1. I do the best work I can do in this course.
2. I try my hardest to do very well in this course.
3. In this course, I put forth my maximum effort.
4. I do as much as I can do to learn the material in this course.

## Past tense version

1. I did the best work I could have done in this course.
2. I tried my hardest to do very well in this course.
3. In this course, I put forth my maximum effort.
4. I did as much as I could do to learn the material in this course.

## Spanish translation

1. Hago el mejor trabajo que puedo hacer en este curso.
2. Hago todo lo posible para que me vaya bien en este curso.
3. En este curso, hago mi máximo esfuerzo.
4. Hago todo lo que puedo para aprender el material en este curso.

1 = Muy en desacuerdo
2 = En desacuerdo
3 = Parcialmente en desacuerdo
4 = Parcialmente de acuerdo
$5=$ De acuerdo
6 = Muy de acuerdo

## Validity and Reliability information

Jones, B. D., Wilkins, J. L. M., Schram, Á. B., Gladman, T., Kenwright, D., \& Lucio-Ramírez, C. A. (2023). Validating a measure of motivational climate in health science courses. BMC Medical Education, 23, Article 548. https://doi.org/10.1186/s12909-023-04311-3

- $\alpha=0.89$ ( $n=98$ students from a medical school in New Zealand)
- $\alpha=0.89$ ( $n=231$ students from a medical school in Mexico; Spanish translation of the Course Effort scale)
- The Course Effort scale was positively correlated with the MUSIC scales.

Jones, B. D., Krost, K., \& Jones, M. W. (2021). Relationships between students' course perceptions, effort, and achievement in an online course. Computers and Education Open, 2, Article 100051. https://doi.org/10.1016/j.caeo.2021.100051

- $\alpha=0.87$ ( $n=1,446$ undergraduate students)
- The Course Effort scale was positively correlated with the MUSIC scales. The effect sizes were medium to large with $r$ ranging from .39 to .59 in the online geography course in this study.

Jones, B. D. (2019). Testing the MUSIC Model of Motivation Theory: Relationships between students' perceptions, engagement, and overall ratings. The Canadian Journal for the Scholarship of Teaching and Learning, 10(3), 1-15. https://doi.org/10.5206/cjsotlrcacea.2019.3.9471

- Five different courses: $\alpha=0.93,0.87,0.94,0.83,0.79$.

Jones, B. D., Byrnes, M. K., \& Jones, M. W. (2019). Validation of the MUSIC Model of Academic Motivation Inventory: Evidence for use with veterinary medicine students. Frontiers in Veterinary Science, 6(11), 1-9. https://doi.org/10.3389/fvets .2019.00011

- The reliability estimates were very good across three samples of veterinary medicine students ( $\alpha=0.87,0.90,0.90$ ).

Jones, B. D., \& Carter, D. (2019). Relationships between students' course perceptions, engagement, and learning. Social Psychology of Education: An International Journal, 22, 819839. https://doi.org/10.1007/s11218-019-09500-x

- $\alpha=0.89$ ( $n=355$ undergraduate students)
- The Course Effort scale correlated with the MUSIC scales. The effect sizes were small to medium with $r$ ranging from .23 to .36 in the psychology course in this study.


## Open-ended item

Two questions: How much effort do you put into this course? Why do you put this amount of effort into this course?

## Effort During Sports Practice scale

This 3-item Effort During Sports Practice scale measures the amount of effort that student-athletes believe that they are putting forth during a sports practice. The items are averaged to compute a students' score.

## Citation

Munz, S., \& Jones, B. D. (under review). Development and validation of an inventory to assess motivational climate in sports: The MUSIC Model of Athletic Motivation Inventory.

## Present tense version

1. I do the best work I can do during practices.
2. I try my hardest to do well in practices.
3. During practice, I put forth my maximum effort.

Students respond to all 4 items using the following Likert-format scale:
1 = strongly disagree
2 = disagree
3 = somewhat disagree
4 = somewhat agree
5 = agree
6 = strongly agree

## Validity and Reliability information

Munz, S., \& Jones, B. D. (under review). Development and validation of an inventory to assess motivational climate in sports: The MUSIC Model of Athletic Motivation Inventory.

- $\alpha=0.86(n=120$ college student athletes)
- The Effort During Practice scale correlated with the MUSIC scales. The effect sizes were varied from small to large with $r$ ranging from .28 to .54 .


## Ease of Course scale

This 3-item scale measures the extent to which students perceive a course to be easy.
Citation

Jones, B. D., Krost, K., \& Jones, M. W. (2021). Relationships between students' course perceptions, effort, and achievement in an online course. Computers and Education Open, 2, Article 100051. https://doi.org/10.1016/i.caeo.2021.100051

Students respond to all 3 items using the following Likert-format scale:
1 = strongly disagree
2 = disagree
3 = somewhat disagree
4 = somewhat agree
5 = agree
6 = strongly agree

## Present tense version

1. This course is very easy for me.
2. I don't need to work my hardest to get a high grade in this course.
3. In this course, I can get the grade I want with very little effort.

## Past tense version

1. This course was very easy for me.
2. I didn't need to work my hardest to get a high grade in this course.
3. In this course, I can get the grade I want with very little effort.

Reliability information
Jones, B. D., Miyazaki, Y., Li, M., \& Biscotte, S. (2022). Motivational climate predicts student evaluations of teaching: Relationships between students' course perceptions, ease of course, and evaluations of teaching. AERA Open, 8(1), 1-17.
https://doi.org/10.1177/23328584211073167

- $\alpha=0.82$ ( $n=2,949$ undergraduate students)

Jones, B. D., Krost, K., \& Jones, M. W. (2021). Relationships between students' course perceptions, effort, and achievement in an online course. Computers and Education Open, 2, Article 100051. https://doi.org/10.1016/j.caeo.2021.100051

- $\alpha=0.73$ ( $n=1,446$ undergraduate students)


## References

Chittum, J., \& Jones, B. D. (2017). Identifying pre-high school students' science class motivation profiles to increase their science identification and persistence. Journal of Educational Psychology, 109(8), 1163-1187. https://doi.org/10.1037/edu0000176
Chittum, J. R., Jones, B. D., \& Carter, D. M. (2019). A person-centered investigation of patterns in college students' perceptions of motivation in a course. Learning and Individual Differences, 69, 94-107. https://doi.org/10.1016/j.lindif.2018.11.007
Deci, E. L., \& Ryan, R. M. (1991). A motivational approach to self: Integration in personality. In R. Dienstbier (Ed.), Nebraska symposium on motivation (Vol. 38). University of Nebraska Press.
Evans, M. A., Jones, B. D., \& Akalin, S. (2017). Using video game design to motivate students. Afterschool Matters, 26, 18-26. https://www.niost.org/Afterschool-Matters-Fall-2017/using-video-game-design-to-motivate-students
George, D., \& Mallery, P. (2003). SPSS for Windows step by step. Allyn \& Bacon.
Hidi, S., \& Renninger, K. A. (2006). The four-phase model of interest development. Educational Psychologist, 41(2), 111-127.
Jones, B. D. (2009). Motivating students to engage in learning: The MUSIC Model of Academic Motivation. International Journal of Teaching and Learning in Higher Education, 21(2), 272-285. https://www.isetl.org/ijthe/pdf/IJTLHE774.pdf
Jones, B. D. (2018). Motivating students by design: Practical strategies for professors (2 ${ }^{\text {nd }}$ ed.). CreateSpace. https://vtechworks.lib.vt.edu/handle/10919/102728
Jones, B. D. (2019). Testing the MUSIC Model of Motivation Theory: Relationships between students'
perceptions, engagement, and overall ratings. The Canadian Journal for the Scholarship of Teaching and Learning, 10(3), 1-15. https://doi.org/10.5206/cjsotl-rcacea.2019.3.9471
Jones, B. D., Byrnes, M. K., \& Jones, M. W. (2019). Validation of the MUSIC Model of Academic Motivation Inventory: Evidence for use with veterinary medicine students. Frontiers in Veterinary Science, 6(11), 1-9. https://doi.org/10.3389/fvets.2019.00011
Jones, B. D., Epler, C. M., Mokri, P., Bryant, L. H., \& Paretti, M. C. (2013). The effects of a collaborative problem-based learning experience on students' motivation in engineering capstone courses. Interdisciplinary Journal of Problem-based Learning, 7(2). https://doi.org/10.7771/15415015.1344

Jones, B. D., Khajavy, G. H., Li, M., Mohamed, H. E., \& Reilly, P. (2023). Examining the cross-cultural validity of the MUSIC Model of Academic Motivation Inventory in English language courses. SAGE Open, 13(1), 1-16. https://doi.org/10.1177/21582440231156583
Jones, B. D., Krost, K., \& Jones, M. W. (2021). Relationships between students' course perceptions, effort, and achievement in an online course. Computers and Education Open, 2, Article 100051. https://doi.org/10.1016/i.caeo.2021.100051
Jones, B. D., Li, M., \& Cruz, J. M. (2017). A cross-cultural validation of the MUSIC ${ }^{\circledR}$ Model of Academic Motivation Inventory: Evidence from Chinese- and Spanish-speaking university students. International Journal of Educational Psychology, 6(1), 366-385. https://doi.org/10.17583/ijep.2017.2357
Jones, B. D., Miyazaki, Y., Li, M., \& Biscotte, S. (2022). Motivational climate predicts student evaluations of teaching: Relationships between students' course perceptions, ease of course, and evaluations of teaching. AERA Open, 8(1), 1-17.
https://doi.org/10.1177/23328584211073167
Jones, B. D., Sahbaz, S., Schram, A. B., \& Chittum, J. R. (2017). Using psychological constructs from the MUSIC Model of Motivation to predict students' science identification and career goals: Results from the U.S. and Iceland. International Journal of Science Education, 39(8), 10891108. https://doi.org/10.1080/09500693.2017.1319093

Jones, B. D., \& Sigmon, M. L. (2016). Validation evidence for the elementary school version of the MUSIC ${ }^{\circledR}$ Model of Academic Motivation Inventory. Electronic Journal of Research in Educational Psychology, 14(1), 155-174. http://dx.doi.org/10.14204/ejrep.38.15081

Jones, B. D., \& Skaggs, G. E. (2016). Measuring students' motivation: Validity evidence for the MUSIC Model of Academic Motivation Inventory. International Journal for the Scholarship of Teaching and Learning, 10(1). http://digitalcommons.georgiasouthern.edu/ii-sot//vol10/iss1/7
Jones, B. D., Watson, J. M., Rakes, L., \& Akalin, S. (2012). Factors that impact students' motivation in an online course: Using the MUSIC Model of Academic Motivation. Journal of Teaching and Learning with Technology, 1(1), 42-58. https://scholarworks.iu.edu/journals/index.php/jotlt/article/view/2040
Jones, B. D., \& Wilkins, J. L. M. (2022). Validating the MUSIC Model of Academic Motivation Inventory: Evidence for the short forms of the college student version. Journal of Psychoeducational Assessment. https://doi.org/10.1177/07342829221121695
Medalia, A., Revheim, N., \& Herlands, T. (2009). Cognitive remediation for psychological disorders: Therapist guide. Oxford University Press.
Mohamed, H. E., Soliman, M. H., \& Jones, B. D. (2013). A cross-cultural validation of the MUSIC Model of Academic Motivation and its associated inventory among Egyptian university students. Journal of Counseling Quarterly Journal, 36, 2-14.
Noddings, N. (1992). The challenge to care in schools: An alternative approach to education. Teachers College Press.
Pace, A. C., Ham, A.-J.L., Poole, T. M., \& Wahaib, K. L. (2016). Validation of the MUSIC ${ }^{\circledR}$ Model of Academic Motivation Inventory for use with student pharmacists. Currents in Pharmacy Teaching \& Learning, 8, 589-597. http://dx.doi.org/10.1016/j.cptl.2016.06.001
Parkes, K., Jones, B. D., \& Wilkins, J. (2017). Assessing music students' motivation using the MUSIC Model of Academic Motivation Inventory. UPDATE: Applications of Research in Music Education, 35(3), 16-22. https://doi.org/10.1177/8755123315620835
Rakes, L., \& Jones, B. D. (2015, February). Assessing VMI engineering majors' motivation perceptions: A program-level investigation. Proceedings of the 2015 Conference on Higher Education Pedagogy, Blacksburg, VA.
Schram, A. B., \& Jones, B. D. (2016). A cross-cultural adaptation and validation of the Icelandic version of the MUSIC Model of Academic Motivation Inventory. Icelandic Journal of Education, 25(2), 159-181. https://ojs.hi.is/tuuom/article/download/2433/1317
Tendhar, C., Singh, K., \& Jones, B. D. (2017). Using the domain identification model to study major and career decision-making processes. European Journal of Engineering Education, 43(2), 235-246. https://doi.org/10.1080/03043797.2017.1329280
Wigfield, A., \& Eccles, J. S. (2000). Expectancy-value theory of achievement motivation. Contemporary Educational Psychology, 25, 68-81.
Wilkins, J. L. M., Jones, B. D., \& Rakes, L. (2021). Students' class perceptions and ratings of instruction: Variability across undergraduate mathematics courses. Frontiers in Psychology, 12, Article 576282. https://doi.org/10.3389/fpsyg.2021.576282


[^0]:    20 Prowadzący dbał o to, jak dobrze wypadłem w tym kursie
    21 Będę mógł wykorzystać wiedzę zdobytą na tym kursie
    22 Prowadzący szanował mnie
    23 Wiedza zdobyta na tym kursie jest ważna dla mojej przyszłości
    24 Prowadzący był przyjazny
    25 Wierzę, że prowadzący troszczył się o moje odczucia
    26 Miałem elastyczność w tym, co mogłem zrobić w tym kursie

