

1 **Case Method Teaching, Strategic Storytelling, and Social**
2 **Change: A Pilot Evaluation of an Online Course to**
3 **Address Colourism in Malaysia**

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16

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18 intervention, storytelling, case method teaching,

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1 **Abstract**

2 Colourism is the discriminatory practice of favoring lighter skin over darker skin. It
3 perpetuates social disparities and drives skin-lightening products (SLP) use globally,
4 including in Malaysia. This study presents the results of an innovative three-week online
5 training course designed to equip health professionals and educators who work with youth in
6 Malaysia with the knowledge and skills to combat colourism and the use of dangerous SLPs
7 through strategic storytelling. We recruited a diverse group of learners (N=19) and assessed
8 their knowledge and attitudes of colourism and use of SLP before and after the course. We
9 also assessed student engagement and collected qualitative acceptability data. The course
10 incorporated case method teaching, interactive case delivery, strategic storytelling methods,
11 and team collaboration elements through digital platforms to facilitate course engagement
12 and learning. Our findings indicate significant improvements in learners' knowledge and
13 concern regarding skin-shade discrimination and SLP usage pre- to post-course. Learners
14 reported their intention to use strategic storytelling techniques for public health advocacy
15 around colourism and use of SLPs. Qualitative learner feedback highlighted the positive
16 aspects of the course, including its realism and the importance of collaborative learning with
17 professionals from diverse fields to combat prevailing sociocultural issues. While this study
18 offers valuable insights into the effectiveness of this innovative training approach, it also
19 identifies areas of future improvements as suggested by learners, such as the need to increase
20 content diversity, enhance communication channels, and extend time for discussion. This
21 course provides a promising model for addressing colourism-related issues in Malaysia.

22

1 **Introduction**

2 Colourism is the discriminatory practice by which lighter skin shades are favoured over
3 darker skin shades (Monk, 2021). It privileges people with lighter skin shades, while those
4 with darker skin are systematically disadvantaged in academia, politics, media and religion,
5 including among peers and families (Moore et al., 2022; Sims & Hirudayaraj, 2016; Phoenix,
6 2014; Suhaimi & Rahman, 2023; Parameswaran & Cardoza, 2009; Abrams et al., 2020).
7 Colourism has also fuelled the rise of an enormous commercial industry in skin-lightening
8 products (SLPs), with industry revenue of USD \$13 billion globally and USD \$7.5 billion in
9 Asia alone in 2020 (Regalado, 2020). Commercial actors market these products through
10 colourist narratives to people of all genders, especially women and girls (Suhaimi & Rahman,
11 2023).

12

13 In Malaysia, lighter skin has been privileged since pre-colonial times, when individuals with
14 lighter skin shades were associated with higher socioeconomic status and being sheltered
15 from manual labour (Suresh, 2021; Thiagarajan, 2021). A recent survey indicated that up to
16 61% of Malaysian adult women agreed that fairer skin equates to greater beauty (Rusmadi,
17 2015). Within the country, sales of SLPs have increased by nearly 100% between 2010 and
18 2015, making it the largest single category of cosmetics sold on the commercial market
19 (Shome, 2015). This rise in SLPs is concerning, not least because many SLPs in Malaysia
20 contain high concentrations of mercury, hydroquinone, and other harmful cosmetic
21 ingredients banned by the National Pharmaceutical Regulatory Authority due to adverse side
22 effects, including organ damage, steroid dependence, rashes and facial discoloration (Wan
23 Mohamed Radzi & Nordin, 2022). SLP use is also associated with depressive symptoms,
24 inconsistent condom use, low self-esteem, and poor mental health symptoms including PTSD

1 symptoms, hazardous or harmful alcohol use, and pathological Internet use (Regencia et al.,
2 2024; Masood et al., 2022; Peltzer & Pengpid, 2017; Peltzer et al., 2016).

3

4 In one study conducted among Malaysian young adults aged 19-24 (Suhaimi & Rahman,
5 2023), the authors highlighted common deceptive advertising messages, such as those with
6 negative portrayal of dark skin or promises to lighten skin shade by a certain number of
7 weeks, that illustrate skin tone bias in social media advertising. This study found that
8 increased knowledge of colourism generated an unfavourable attitude towards advertisements
9 that portrayed dark skin negatively and that most young adult learners received information
10 on colourism from social media.

11

12 Professionals working with youth can play a role in raising knowledge of colourism and
13 protecting youth from predatory advertising and the use of dangerous SLPs (Mehra et al.,
14 2022). Evidence-based interventions to counter colourist appearance ideals are scarce, but
15 effective training in counter-narrative campaign creation and strategic storytelling could
16 promote the disruption of cultural colourist narratives (Baxley, 2017; Santoso et al., 2023).

17 Strategic storytelling techniques, defined as “the art of using narrative to convey complex
18 information in a way that is engaging and resonates with the audience (Ojei, 2023)” paired
19 with case method teaching, are useful educational methodologies that integrate carefully
20 crafted narratives, discussions, and problem-based learning in the context of real-world
21 scenarios (Adamson et al., 2006; Austin & Sonnevile, 2013; Santoso et al., 2023). Case
22 method teaching, delivered through e-learning modules that draw on a learning theory of
23 social constructivism, can guide remote learners to construct and challenge their knowledge
24 and beliefs. It fosters actively engaging in teaching material, testing it against their own
25 beliefs, and negotiating new understanding through social interaction and forming

1 relationships with fellow learners (Gooding & Austin, 2016). Moreover, using digital
2 learning platforms for case method teaching can also promote accessibility, considering the
3 demands of professionals who may not have the time to attend traditional in-person classes
4 (Gibson et al., 2020).

5

6 Media advocacy can be an effective tool to advance health promotion for colorism. Using
7 media advocacy principles, professionals working with youth and young adults can engage in
8 1) agenda setting, thereby promoting important issues that encourage discourse and 2)
9 framing, which would allow those interacting with their material to reconcile new
10 information with particular beliefs they held (Dorfman & Krasnow, 2014). For instance,
11 Childs (2022) describes how social media platforms such as Instagram and YouTube can act
12 as a tool to contextualize colorism in the beauty industry and for women of color to use these
13 tools to practice self-definition and self-empowerment.

14

15 In 2021, our team based at the Harvard T.H. Chan School of Public Health and Boston
16 Children's Hospital launched "Colouring the Narrative: How to Use Strategic Storytelling to
17 Challenge Skin Shade Ideals in India" to leverage case method pedagogy through digital
18 platforms for health professionals working with youth to learn the principles of strategic
19 storytelling and combat colourism in India (Santoso et al., 2023). The course was 3-weeks
20 long and 24 learners completed all e-course activities and post-course survey. In Week 1,
21 learners were introduced to the e-course, engaged in text-based group discussions through the
22 Canvas LMS discussion board, and submitted a reflection essay describing the role of
23 corporate messaging for SLP and its influence on colourist appearance ideals. In Week 2,
24 learners engaged in the primary case narrative and submitted another reflection essay focused
25 on identifying counter-narrative strategies for disrupting dominant social narratives around

1 colorism. In Week 3, learners worked on developing a media campaign and the evaluation of
2 that campaign. The results demonstrated that from pre- to post-course, there were significant
3 improvements in learners' knowledge of colourism and SLPs, as well as increases in concern
4 about the seriousness of colourism and the likelihood of discussing the issue in personal and
5 professional settings through storytelling. Learners described a positive experience with the
6 online course components. As part of the course evaluation, India-based learners suggested
7 improving the course through the inclusion of intersectional material on colourism and
8 gender, religion, caste, class, and age (Santoso et al., 2023). They also desired increased peer-
9 to-instructor communication and more lectures to increase engagement. Other suggestions
10 included using complementary modes of communication in addition to the Canvas learning
11 management system (LMS) and email. The e-course received awards from the Society for
12 Public Health Education, the Academy for Eating Disorders, and the Digital Education
13 Awards ([https://www.hsph.harvard.edu/stripped/colouring-the-narrative-how-to-use-
14 storytelling-to-create-social-change-in-skin-shade-ideals-in-india-e-course/](https://www.hsph.harvard.edu/stripped/colouring-the-narrative-how-to-use-storytelling-to-create-social-change-in-skin-shade-ideals-in-india-e-course/)).

15
16 For the present study, our team of public health researchers, educators, a psychologist, a writer,
17 and an animator, built on the India-based course to develop a new online course adapted for
18 the Malaysian context. As part of the review and feedback process of the India-based course,
19 the teaching team, consisting of educators, medical and public health professionals, and a
20 sociologist, invited all enrolled learners to provide suggestions that would improve future
21 iterations of the e-course (Santoso et al., 2023). For this Malaysia-based e-course, we
22 incorporated this feedback to improve course efficacy and learner experience. As with the
23 India-based course, the Malaysia-based course used case method pedagogy and was designed
24 for public health, education, and other professionals working with youth covering the principles
25 and techniques of strategic storytelling to combat colourism and the cosmetic skin-lightening

1 industry. However, to tailor the e-course to a Malaysia-specific context, we introduced a new
2 case narrative with corresponding illustrations. The narrative, situated in Malaysia, depicted
3 eight main characters who were all fighting colorism in their own lives, and explored social
4 change strategies to challenge skin shade ideals. The six characters consisted of a secondary
5 school teacher, a creative director of an advertising agency, an illustrator, and three students.

6

7 Our work drew on intersectional theory, a framework established by legal scholar Kimberlé
8 Crenshaw (1989). It posits that the differing social identities and positions, such as ethnoracial
9 group, gender, socioeconomic status, are intersectional and therefore, shape the human
10 experience jointly (Bauer et al., 2021). Beyond these individual level factors, these
11 intersections are also shaped through larger systemic and structural factors of racism and
12 sexism (Bowleg, 2012). By journeying through the experiences of the different characters,
13 engaging in reflective weekly exercises, and working with their groups, learners cultivate an
14 understanding of how colorism is experienced across multiple social positions.

15

16 We also incorporated additional suggested elements from India-based learners, including two
17 lecture videos on racism and colourism and strategic storytelling methods, synchronous office
18 hours with co-instructors, a WhatsApp group for communication outside of Canvas, and a
19 sample counter-narrative campaign for the final assignment. We then pilot-tested our new
20 Malaysia-based course over three weeks in early 2023. We hypothesized that this brief e-course
21 would: 1) increase learners' knowledge and concern regarding skin-shade discrimination and
22 SLP usage, 2) increase learners' intentions to use strategic storytelling to promote public health
23 and social change, and 3) increase learners' skills in media advocacy and strategic storytelling.
24 The study also aimed to identify areas of improvement for future iterations.

25

1 **Method**

2 **Recruitment**

3 Professionals working with youth were enlisted from the following organisations:

4 1) Teach for Malaysia, an independent non-governmental organization dedicated to enhancing
5 educational quality and opportunities among Malaysian children.

6 2) Relate Mental Health Malaysia, a non-profit focused on improving mental health awareness
7 and delivering accessible and effective psychological services.

8 3) The Malaysian-American Commission on Educational Exchange, an independent
9 organization established through a bilateral agreement between Malaysia and the U.S. to foster
10 educational exchange and diplomacy.

11

12 Potential learners were identified through the alumni and university networks of these
13 organisations, as well as their social media platforms. To qualify, individuals needed to be
14 proficient in English, as all course materials were presented in English, and were required to
15 commit 15 hours in total over the 3-week duration of the course. Upon successful completion
16 of all course readings and assignments, learners received compensation of 188 Malaysian
17 ringgit (MYR), equivalent to USD \$48, along with a Course Completion Certificate.

18

19 Out of 27 individuals who expressed interest by filling out the registration form, 20 (74.1%)
20 were eligible to participate. The analytical sample included 19 learners who successfully
21 completed all aspects of the e-course and the post-course survey. These learners represented a
22 diverse range of professions, ethnic backgrounds, ages, and hailed from different geographical
23 regions across Malaysia, as detailed in **Table 1**.

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[Insert Table 1 here]

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Study design

Following the submission of the registration form and subsequent enrollment in the Canvas LMS, learners proceeded to complete a pre-course questionnaire. Subsequently, they were organised into groups comprising four to five learners, with explicit instructions to engage in collaborative efforts throughout the duration of the course and for their final group assignment centered around a media campaign.

In Week 1, learners were introduced to the e-course and the Canvas LMS via a video presentation by Malaysia-based co-instructors (SNC, AMR, YFK). They commenced the e-course by introducing themselves through a course discussion, and familiarised themselves with foundational readings (e.g., academic articles on skin lightening in Malaysia and colourism in youth and young adults) (Rusmadi et al., 2015; Craddock et al., 2018; Michalek et al., 2019), a news video report on the skin-lightening industry in Asia (Feng & Rovella, 2021), and introductory videos (e.g., video lectures from instructors on racism and colourism and on strategic storytelling). Next, learners were required to submit a reflection essay, exploring the ways that corporate messaging for SLPs reinforce colourist beauty standards. Learners also read the e-course’s pedagogical centrepiece, the fictional case narrative. This fictional narrative delves into the lives of eight characters working through the implications of colourism in their daily lives. This case narrative was written by a Malaysia-based creative writer who is knowledgeable about the sociocultural implications of colourism in the country. Multiple iterations of the draft narrative were reviewed by the teaching team before finalization. The interdisciplinary teaching team and well as two external reviewers provided feedback on the narrative drafts to ensure it supported learning objectives of the e-course, accurately reflected physiological and psychological effects of SLP use, and was tailored to

1 the learning preferences of professionals participating in the e-course. An illustrator based in
2 Malaysia collaborated with the creative writer to illustrate the narrative. All learners were
3 added to a WhatsApp group for course announcements. This additional communication
4 channel was established to facilitate multiple modes of interaction between teaching staff and
5 learners beyond relying on emails and the Canvas LMS.

6
7 In Week 2, learners interacted with the previous week's case narrative using an illustrated,
8 self-directed, comic-style format that included integrated reflection prompts. They also
9 delved into technical monographs addressing various methods employed in strategic
10 storytelling for promoting social change, as documented by VanDeCarr (2015) and
11 Reinsborough & Canning (2010). To begin to foster cohesion and collaborative thinking
12 within assigned teams before working on the final project in Week 3, learners were invited to
13 share their thoughts on the course readings with their team members. As part of an
14 assignment, learners were required to assume the perspective of a character of their choice
15 from the case narrative. Their task was to formulate a context-specific strategy for countering
16 prevailing colourist narratives. In addition, the co-instructors held office hours in Week 2 to
17 field learner questions on the media campaign to be completed in Week 3.

18
19 In Week 3, learners met with their assigned group to develop a media campaign. For the
20 campaign, participants were instructed to discuss their individual counter-narrative idea with
21 their group members and present one specific counter-narrative campaign. Each group's
22 media campaign was required to have three primary components: the campaign's key
23 messaging, a pitch to a project partner, and an evaluation strategy. Learners also needed to
24 provide feedback on two other groups' media campaigns. Finally, learners completed the

1 post-course evaluation survey. The study was approved by the Boston Children's Hospital
2 Institutional Review Board (IRB) and an in-country Relate Mental Health Malaysia IRB.

3

4 **Pre-course and post-course measures**

5 The pre-course survey asked learners to rate their knowledge and perceptions of skin-shade
6 discrimination and the use of SLPs on a 7-point Likert scale ranging from 1 = "Strongly
7 Disagree" to 7 = "Strongly Agree." Open-ended questions queried interest in the course and
8 skills they hoped to gain. The post-course survey included identical perception and
9 knowledge-related questions, the validated Online Student Engagement (OSE) Scale (Dixon,
10 2015), questions about their overall course experience on a 7-point Likert scale, and
11 suggestions for future e-course iterations. Aside from the OSE, questions in the pre- and post-
12 course assessments were adapted from Santoso et al. (2023).

13

14 **Online Student Engagement Scale**

15 Learner engagement was assessed using the validated OSE Scale (Dixon, 2015), which
16 includes self-reported and tracking (i.e., observed and applied) data. The self-reported portion
17 includes 19 items on a 5-point Likert scale on how well each behaviour, thought, or feeling
18 was characteristic of them or their behaviours, ranging from 1 = "not characteristic of me" to
19 5 = "very characteristic of me." Observed learning behaviours were determined through the
20 number of announcements viewed, the number of discussions they saw, assignments viewed,
21 and readings viewed. Application learning behaviours included the number of discussions
22 they contributed to, submitted assignments, emails replied to, and surveys completed.
23 Information on student learning behaviours was obtained from the Canvas LMS.

24

25 **Statistical analysis**

1 Non-parametric Wilcoxon's tests were used to assess self-reported changes in learners'
2 knowledge and perception of skin-shade discrimination and the use of SLPs between the pre-
3 course and post-course surveys, using a cut-off significance value of $p < 0.05$. We conducted
4 descriptive statistics (mean, standard deviation) to explore the learners' overall course
5 experience. Open-ended responses to items about learners' experiences were coded
6 independently by two coders (MS and CC), guided by a codebook, and overseen by a third
7 researcher (SBA). Initial codes were then grouped into themes derived from the data.

8

9 **Results**

10 **Changes in knowledge and perception**

11 From pre- to post-course, there were significant improvements in learners' knowledge and
12 perceptions on 5 of 11 items ($p < 0.05$) (see **Table 2**).

13

14 [Insert Table 2 here]

15

16 **Learner e-course engagement**

17 While there were no significant correlations between learners' self-reported course
18 engagement (OSE) score ($M = 3.64$, $SD = 0.56$) and participant observation learning
19 behaviours ($M = 359.53$, $SD = 275.34$, $p = 0.09$), there were significant moderate
20 correlations between course engagement and application learning behaviours ($M = 14.32$, SD
21 $= 2.19$) ($r = 0.56$, $p < 0.01$).

22

23 **Learning experiences in the e-course**

24 Overall, learners agreed that course readings were useful and informative ($M = 6.00$, $SD =$
25 0.94) and that reflection essay 1 and reflection essay 2 aligned well with the course learning

1 objectives. They thought the interactive digital case and its characters were realistic, and the
2 plot and characters were easy to follow. The media campaign group project also helped
3 learners understand the basic approaches for creating strategic storytelling communications to
4 support public health promotion. Overall, learners reported that they would recommend the
5 course to their professional colleagues and fellow students, felt equipped to use their
6 knowledge in their work and research, and were likely to use the storytelling-based
7 communication techniques covered in this course in the future (**Table 3**).

8
9 [Insert Table 3 here]

10

11 **Learner-identified motivations, strengths, and suggestions for course improvement**

12 Post-course survey results indicated that learners thought the course assignments helped them
13 gain new insights into colourism by highlighting nuanced social narratives that perpetuate it
14 and increasing their knowledge of leveraging storytelling for social change and advocacy.
15 Learners valued the diversity of professions and ethnic backgrounds of their peers. They
16 reported that this enhanced their comfort with engaging and communicating with diverse
17 populations on the issue of colourism. Learners highlighted the relatability of characters in
18 the interactive case narrative and the role of the illustrated interactive case narrative in
19 promoting perspective-taking (**Table 4**).

20

21 [Insert Table 4 here]

22

23 Learners also suggested that the course would benefit from incorporating greater diversity of
24 content related to how colourism intersects with issues of racism, ageism, and mental health
25 into course readings, as well as scenarios of how professionals could discuss these issues with

1 the youth they work with. Learners also recommended including more lecture-based content
2 than readings to facilitate understanding of complex social issues and more synchronous time
3 for topic-focused discussions with course instructors.

4

5 However, they also reported some barriers that prevented them from being more active
6 contributors to the course, including a lack of participation among some group members,
7 issues with network connectivity, and the short timeframe to complete the course. To prevent
8 the problem of less-engaged peer group members, learners suggested integrating a
9 synchronous onboarding session with peers to better gauge their interest in the e-course. They
10 emphasized that more frequent interactions among learners can foster more collaborative
11 learning.

12

13 **Discussion**

14

15 Given the various health risks associated with the use of SLPs, such as organ damage (Chan,
16 2011), this study was conducted to explore the efficacy of a three-week e-course to increase
17 learners' knowledge and concern for skin-shade discrimination and SLP use and introduce
18 strategic storytelling to promote public health and social change. As hypothesized, learners
19 reported increased knowledge of and concern for skin-shade discrimination and the use of
20 SLPs in Malaysia pre- to post-course. Moreover, OSE results suggest that learners who
21 undertook more application learning behaviours had higher engagement scores in the e-
22 course compared to those who did less of these behaviours. Qualitative results show that
23 learners reported a positive learning experience in discussing colourism with others during
24 the media campaign group project, underscoring the importance of collaborative learning.

25

1 Other studies have also demonstrated the importance of storytelling for challenging colourist
2 narratives and public health promotion that enhances knowledge of prevailing sociocultural
3 issues among youth through direct youth engagement (Baxley, 2017). Baxley (2017)
4 conducted an after-school literacy intervention that taught counter-narratives to eight Black
5 girls in the United States to challenge dominant skin-shade ideals in literature for three
6 academic school terms. They found that teaching counter-narrative skills helped combat
7 societal negative images and messages regarding skin shade and empowered them to
8 critically examine racist images from literature and media. While the prior work outlined
9 above worked directly with youth to challenge prevailing sociocultural issues, our study
10 extends beyond this work by offering training to educators and health providers to use
11 strategic storytelling for social change. Our study also extends the literature by obtaining both
12 qualitative and quantitative measures of our training efficacy through open-ended participant-
13 sharing questions and survey data.

14

15 Our study aligns with others that have found similarly positive experiences for online courses
16 among learners and the benefit of online and visual media for training public health
17 professionals (Gibson et al., 2020). This study also adds to the nascent literature on the
18 pedagogical elements that increase learner engagement and decrease drop-out in digital
19 courses on culturally relevant issues such as colourism, including the addition of lectures on
20 foundational concepts, more culturally relevant communication channels to foster learner-to-
21 instructor interaction (i.e., WhatsApp). Moreover, our study indicates that other elements that
22 increase learner engagement and decrease drop-out include timely meetings with instructors
23 to tackle queries that arise during learning, and the inclusion of readings that illustrate the
24 intersectionality of foundational concepts (i.e., mental health, racism, ageism) with various
25 individual identities (i.e., age, race, and ethnicity).

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Study Limitations

Limitations include the narrow generalizability of findings, given the small sample size. Although 95% of the learners who enrolled in our e-course completed all course elements, the drop-off following registration (29.6%) diminished the statistical power of our analysis. Additionally, since our pilot study was conducted over the course of three weeks and post-course evaluation data was collected immediately following course completion, long-term evaluation data on the impact of the course on learners' behaviours was not gathered.

Future iterations of this course can include these features through an extended course timeline so that there is more time for learners to explore these possibilities. As such, specific questions we can address include the long-term efficacy of the three-week course, and what the impact of the media content produce in their social media would be for differing audiences across ages and genders.

Conclusion

Our brief, three-week online case method course employed innovative strategies to challenge social norms around colourism in Malaysia. Learners demonstrated increased knowledge and concern for skin-shade discrimination and SLP use and greater understandings of strategic storytelling techniques to change social norms. Learners expressed intentions to apply the course materials in both personal and professional settings, recognising the course's value in equipping them with skills to craft storytelling-based communications to support public health advocacy. These findings can inform best practices and recommendations for future e-course modules to train diverse professionals working with youth on culturally relevant and pervasive issues, such as colourism, through interactive learning content.

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1 **Table 1**
 2 *Demographic Characteristics of Learners who Completed the “Colouring the Narrative” E-*
 3 *Course (N=19)*

Category	Learners (N=19)
Professional Degree¹	
Bachelor’s Degree	10 (52.6%)
Postgraduate Diploma	4 (21.0%)
Master’s Degree	7 (36.8%)
MD	1 (5.3%)
MBBS (Bachelor in Medicine and Surgery)	1 (5.3%)
Primary Professional Role¹	
Health Workers	3 (15.8%)
Government Employee	2 (10.5%)
Volunteer	4 (21.0%)
Social Worker	2 (10.5%)
NGO employee	4 (21.0%)
Researcher	1 (5.2%)
Educator/Schoolteacher	7 (36.8%)
Student/Intern	4 (21.0%)
Age Range (years)	
18-29	10 (52.6%)
30-39	7 (36.8%)
50-59	2 (10.5%)
Gender Identity	
Woman	16 (84.2%)
Man	3 (15.8%)
Ethnic Identity	
Bumiputera/Sabah	1 (5.3%)
Chinese	14 (73.7%)
Indian	2 (10.5%)
Bangladeshi	1 (5.3%)
Mixed Ethnicity	1 (5.3%)
Geographic Region	
Johor	2 (10.5%)
Penang	2 (10.5%)
Perak	1 (5.3%)
Sabah	1 (5.3%)
Selangor	6 (31.6%)
Kuala Lumpur	7 (36.8%)

5 ¹Learners were allowed to fill in more than 1 response.
 6

1 **Table 2**

2

3 *Changes in learner knowledge and perception from pre- to post-course surveys (N=19)*

4

Statement¹	Pre-Test Means ± SD² (N=19)	Post-Test Means ± SD (N=19)
1. It is important for physicians working with children and adolescents to learn about skin-lightening products.	4.95 ± 1.58	6.47 ± 0.77**
2. Colourism and use of skin-lightening products do not have much relevance to public health. (R)	2.74 ± 1.88	1.89 ± 1.20*
3. Colourism is so deeply ingrained in the culture, we have little chance to change cultural beliefs. (R)	3.63 ± 1.86	3.26 ± 1.79
4. Professionals working with children and adolescents should not be too concerned if young people use skin-lightening products. (R)	3.00 ± 1.67	1.95 ± 1.27*
5. I am likely to discuss the harmful effects of colourism and skin-lightening products with youth or youth program staff I work with professionally in the next three months.	6.00 ± 1.20	6.16 ± 1.12
6. I am likely to discuss the harmful effects of colourism and skin-lightening products with youth in my family or community in the next three months.	5.26 ± 1.28	5.47 ± 1.35
7. Public health practitioners should use storytelling-based communication techniques to address health issues.	5.89 ± 1.49	6.37 ± 0.68**
8. I understand how to use basic approaches for creating storytelling-based communications to support public health promotion.	4.47 ± 1.39	5.84 ± 0.83*
9. I am likely to seek out opportunities to learn more about storytelling-based communications in public health.	5.32 ± 1.77	5.68 ± 0.89
10. I am likely to use storytelling-based communication techniques covered in this course in the next three months.	5.63 ± 1.50	5.37 ± 0.83
11. When major corporations are profiting from consumer health risk behaviours, there is little chance you can create change to protect	3.32 ± 1.57	2.68 ± 1.42

**consumers using storytelling-based
communication techniques. (R)**

1 ** $p < 0.001$; * $p < 0.05$

2 ¹Responses were recorded on a 7-point Likert scale ranging from “Strongly Disagree” to
3 “Strongly Agree” and scored from 1-7.

4 ²SD = standard deviation.

5 ³(R) indicates items scored in reverse.

6

7

1 **Table 3**
 2 *Participant learning experiences reported in post-course survey (N =19)*
 3

Statement ¹	Mean rating ± SD ²
Course Readings	
The course readings were useful and informative.	6.00 ± 0.94
The course readings aligned well with the course learning objectives.	5.95 ± 0.91
I am likely to use VanDeCarr’s “Storytelling & Social Change: A Strategy Guide for Grantmakers” or Reinsborough and Canning’s “Re:Imagining Change: How to Use Story-based Strategy to Win Campaigns, Build Movements, and Change the World” again in the future.	5.58 ± 1.22
Reflection Essay 1: Skin-lightening message	
<i>Reflection Essay 1</i> was a useful and informative exercise.	6.32 ± 0.67
<i>Reflection Essay 1</i> aligned well with the course learning objectives.	6.21 ± 0.79
Interactive Digital Case	
The <i>interactive digital case</i> was a useful and informative exercise.	6.47 ± 0.70
The story of the <i>interactive digital case</i> and the characters seemed realistic to me.	6.32 ± 0.89
When completing the <i>interactive digital case</i> , I found it easy to follow the plot and characters.	6.26 ± 1.10
Reflection Essay 2: Character response and counter-narrative message brainstorm	
<i>Reflection Essay 2</i> was a useful and informative exercise.	5.95 ± 1.03
<i>Reflection Essay 2</i> aligned well with the course learning objectives.	6.00 ± 1.00
Group project: Media campaign	
The <i>group project</i> (media campaign) was a useful and informative exercise.	6.26 ± 0.65
The <i>group project</i> (media campaign) aligned well with the course learning objectives	6.21 ± 0.63
The <i>group project</i> (media campaign) helped me understand the basic approaches for creating storytelling-based communications to support public health promotion.	6.26 ± 0.65
Overall course	
This course was worth my time and effort.	6.11 ± 0.99

I would recommend this course to my professional colleagues/fellow students.	5.74 ± 1.33
I feel equipped to use what I have learned in this course in my work/research.	5.53 ± 1.35
I am likely to use storytelling-based communication techniques covered in this course in the future.	5.89 ± 0.66

-
- 1 ¹Responses were recorded on a 7-point Likert scale ranging from “Strongly Disagree” to
 - 2 “Strongly Agree” and scored from 1-7.
 - 3 ²SD = standard deviation.
 - 4

1 **Table 4**

2

3 Summary of Learner Feedback for “Colouring the Narrative,” an e-Course for Health

4 Professionals in Malaysia to Increase Knowledge Surrounding Colourism and Strategic

5 Storytelling ($N = 19$)

6

Theme	Theme description	Relevant Quotes
<i>Increased awareness and broadening understanding of colourism and skin-lightening products</i>	<ul style="list-style-type: none"> ● Increased awareness of colourism by highlighting less obvious social narratives perpetuating it ● Increased understanding of colourism and skin-lightening ● Broadened perspectives of the impact of skin-lightening products and the market for these products 	<ul style="list-style-type: none"> ● “I learned more about colourism and the different ways it affects our daily lives and how society functions as a whole disseminating so many negative ideations about skin colours and how we are all affected by them whether it is obvious messaging or subliminal messaging.” ● “I really enjoyed the first reflection essay as it made me research closer on the types of whitening products available and the ingredients; as it's not something I'm on the lookout for I enjoyed learning and understanding the current market for this.”
<i>Engaged in diverse perspectives and experiences through collaborative learning</i>	<ul style="list-style-type: none"> ● Frequency of interpersonal interactions between learners allowed for active learning from peers ● Diversity of peer backgrounds, professions, and personal experiences helped enhance learning experience through collaborative learning 	<ul style="list-style-type: none"> ● “It helps to work and brainstorm on a project like this with a group of individuals from different backgrounds. We get to see the influence of our experiences but also how we can leverage on our strengths.” ● “I enjoyed the interactions with my team. We discussed our previous reflection essays, talked about our own experiences, and then tried to figure out possibilities for a counter-narrative message. The course would have been quite dry without them.”

Gained storytelling and advocacy skills for professional settings and to address sensitive topics

- Learnt how to leverage storytelling for social change and communicate sensitive cultural topics with youth
- Gained practical storytelling skills that could be applied to career-related settings
- Provided practical skills for public health advocacy
- “Storytelling-based communication techniques could be utilized in any type of advocacy campaign, and this will be very useful for me in line with my work.”
- “I benefitted a lot, especially in relation to the storytelling approaches in communicating big or sensitive ideas with youth.”
- “The group project was a great opportunity to put into practice what we have learnt in the course so far. To me, it helped give me structure in mapping out my own public health advocacy that I hope to do in the future.”

Course elements and structure were conducive to asynchronous learning

- Content was simple to follow, engaging, relatable and rooted in everyday life and observations of Malaysians
- Course materials were accessible at any point in time and conducive to asynchronous learning
- Course utilized unique case method pedagogy, an interactive case narrative, and group activities to foster learning
- Course reminders and extensions helped remind learners to complete assignments
- “The course readings were well-selected and relevant to the course. I especially liked that there were articles which specifically addressed the Malaysian context.”
- “I appreciated that the interactive digital case offered a glimpse of the Malaysian reality. The astute observations of the writer helped to call attention to less-noticed behaviours and social narratives which perpetuate colourism.”

1 **Appendix 1.** Media campaign assignment guidelines.

- 2 • Discuss your [individual counter-narrative ideas](#) from Week 2 with your group members.
3 • Agree on a team counter-narrative media message that can underlie a campaign.
4 • Present one specific counter-narrative campaign that addresses all goals with 3
5 components (campaign, partner pitch, evaluation component) and create a Google slides
6 presentation (template for presentation is present in individual Group folders in
7 your [Project Groups Tab](#)) organized in the following way:

- 8 • Slide 1: Title, Group Names
9 • Slide 2-4: Campaign Description - On these slides, include targets and audiences, how
10 your campaign would construct and deconstruct dominant narratives, and define the
11 use of your story
12 • Slide 5: Partner Pitch - On this slide, include the primary campaign narrative and how
13 you would define and pitch your intervention to a project partner
14 • Slide 6: Focus of Evaluation - On this slide, propose an evaluation strategy

15 When your team is ready to submit the assignment, please download the Google slides
16 presentation and the summary document from your Groups for e-course folder and submit it
17 on this page. Only one person needs to submit per group. Your peers from other groups will
18 download your assignment from this page and give you and your group members input on it.

19 You are also encouraged to post your campaign on your own social media platforms to trial it
20 with audiences as an optional activity.

21