

1 **Title:** Using an international role-modeling pedagogy to engage first-year occupational
2 therapy students in learning professionalism

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Abstract

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Importance: Through this new pedagogy, students learn about professionalism in occupational therapy from international role models who have developed theories or practice models.

Objective: To investigate whether students can expand their understanding of professionalism by engaging with international role models.

Design: A pre-test-post-test design.

Setting: One academic institution.

Participants: 102 first-year students enrolled in an introductory occupational therapy course.

Intervention: This international role-modeling pedagogy was embedded in a course as an informal curriculum. Students, divided into 16 groups, collaboratively interviewed 8 role models (academic theory or practice-model developers), to understand their inspiration and ideas about occupational therapy competence.

Outcomes and Measures: In addition to pre- and post-class surveys, students completed individual reflection reports as course assignments. A post-semester focus group was also held.

Results: 63 students completed the surveys and 5 attended the focus group. The students showed significant improvements in their understanding of professionalism (Wilcoxon signed-rank $Z = 5.671-6.766, p < 0.001$) after the course. The students became more aware of intrinsic aspects of professionalism by interviewing the experts. Major themes in the student focus group included gaining a better understanding of professionalism and committing to personal changes. Some implementation challenges were also experienced.

Conclusion and Relevance: This study shows how international experts (theory or practice-model developers) can be integrated into occupational therapy curricula as role

47 models, to enhance the teaching of professionalism to students.

48 **What This Article Adds:**

49 Interviewing international role models who have developed theories or practice models can

50 enhance student learning in the area of professionalism, complementing traditional

51 approaches to clinical education.

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53 Occupational therapy is a client-centered health profession that uses everyday
54 activities therapeutically to enable clients to participate in roles, habits, routines, and rituals
55 in settings that are relevant to their lives (American Occupational Therapy Association,
56 2014). To design occupation-based interventions that facilitate the tailored changes needed
57 for successful participation, occupational therapists who work collaboratively with clients
58 must have high levels of “professionalism,” defined as the competences, values, behaviors,
59 and ethics that enable occupational therapists to fulfil their responsibilities to clients, other
60 healthcare professionals, and broader society (Aguilar, Stupans, Scutter, & King, 2013;
61 Hordichuk, Robinson, & Sullivan, 2015). Professionalism is cited as a core attribute of
62 competent occupational therapists in many professional association documents, including
63 *Standards of Practice for Occupational Therapy* (American Occupational Therapy
64 Association, 2015) and *Essential Competencies of Practice for Occupational Therapists in*
65 *Canada* (Association of Canadian Occupational Therapy Regulatory Organizations, 2011).

66 While professionalism is important for occupational therapists, it is challenging to
67 teach professionalism to students (Robinson, Tanchuk, & Sullivan, 2012; Sullivan &
68 Thiessen, 2015). Students may find it difficult to learn about and understand
69 professionalism because they have few lived experiences relating occupational therapy. As
70 professionalism is a complex, multi-faceted concept, educators also find it challenging to
71 convey the components of professionalism and teach them to students (Aguilar et al., 2013;
72 Hordichuk et al., 2015); they therefore need information from multiple sources (Sullivan &
73 Thiessen, 2015). Several pedagogical approaches to teaching professionalism have emerged
74 from literature on medical and health professions (Birden et al., 2013; Bossers et al., 1999).
75 One approach uses a formal curriculum of lectures to teach students specific information
76 about the professional behaviors they will need to treat patients in clinical settings. However,
77 literature reviews have found that some aspects of professionalism (e.g., professional

78 relationships) are not easily taught through didactic coursework (Birden et al., 2013).

79 The informal professionalism curriculum, defined as unscripted, unplanned, and
80 highly interpersonal forms of teaching and learning professionalism (Cruess, Cruess, &
81 Steinert, 2008), is often used as a complementary approach to support lecture-based
82 education (Baernstein, Oelschlager, Chang, & Wenrich, 2009). This informal
83 professionalism curriculum emerges through student contact with university educators,
84 clinicians at medical placements, and peers in non-academic contexts. Clinicians, in
85 particular, have been cited as key role models for students, providing the primary influence
86 in their professional development (Baldwin, Mills, Birks, & Budden, 2014; Birden et al.,
87 2013). Role-modeling occurs when students observe the behaviors and attitudes of someone
88 they admire and subsequently adopt those behaviors and attitudes themselves (Cruess et al.,
89 2008). By interacting with practitioners, students have opportunities to observe and practice
90 the professional behaviors and attitudes that an occupational therapist requires. However,
91 one criticism of role modeling is that it is imitative and observational, and could thus be
92 considered a less active form of learning. Concerns have also been raised about the uneven
93 quality of practitioners available to help students model professionalism. Accordingly, there
94 is a need for other informal professionalism curricula that could provide students active
95 learning experience with good role models.

96 This study has designed a new international role-modeling pedagogy as the informal
97 curriculum to offer students opportunities to observe the professionalism of good
98 occupational therapy role models. This pedagogy is defined as the use of international
99 experts who have developed an occupational therapy-related theory (incorporating a
100 conceptual model, framework, and frame of reference) or practice model to facilitate
101 students' learning about professionalism. These experts are reflective therapists who can
102 identify knowledge gaps and develop theories or practice models to enhance occupational

103 therapy practice; they are thus assumed to be good role models for professionalism (Parham,
104 1987). The theoretical framework for this pedagogical approach was Bandura's Social
105 Learning Theory (1977), which involves four processes of observational learning. The first
106 step is *attention to modeled behaviors*; that is, students observe professionalism through
107 actively interviewing occupational therapy experts. The second step is *retention of observed*
108 *inputs*. In this pedagogical approach, students summarize the experts' observed
109 professionalism in individual self-reflection reports by following the process of role
110 modeling (Cruess et al., 2008). The third step is *production of a motor response* which
111 involves students' self-reflection on converting their observation into action plans for
112 development of the professional self. The last step is *incentive and motivation process*
113 which requires positive sanctions on students' modeled behaviors (i.e., instructors providing
114 feedback on each student's observation and action plan in the self-reflection reports).

115 Additionally, the concept of internationalization of curriculum (Horton, 2009) is
116 operationalized in the international role-modeling pedagogy. As many of the experts who
117 have developed theories or practice models are based outside Hong Kong, interacting with
118 them could help students have more access to an international learning experience. For
119 instance, students' perspectives on occupational therapy could be broadened by engaging
120 with global theories, practices, and types of professionalism, developed under different
121 cultural expectations. Furthermore, students are required to work as groups and interview
122 one expert per group in this pedagogy. The group-based design aims to foster students'
123 team-working attitude and skills that have been considered as one core professionalism
124 attribute (Silva, Troncon, & Panuncio-Pinto, 2019).

125 The development of genuine professionalism is a learning continuum, in which
126 professionalism develops sequentially through stages that should begin when students join
127 an occupational therapy education program (Kasar & Muscari, 2000). Therefore, the present

128 study aimed to explore how the international role-modeling pedagogy helped first-year
129 occupational therapy students learn professionalism from international experts who had
130 developed theories or practice models. Specifically, there were two research questions:

- 131 1. To what extent did the international role-modeling pedagogy foster students’
132 understanding and awareness of professionalism in occupational therapy?
- 133 2. What were students’ perceptions of learning experience regarding professionalism in the
134 international role-modeling pedagogy?

135 **Method**

136 *Participants.* This study population consisted of 102 first-year undergraduate
137 occupational therapy students enrolled in a mandatory *Occupational Therapy Theory and*
138 *Process I* course at The Hong Kong Polytechnic University during the 2017–2018 academic
139 year. Invitations to participate and research details were distributed to all students who
140 attended the first-lecture course orientation. Interested students were asked to provide
141 written consent. Ethical approval for this study was obtained from the Human Subjects
142 Ethics Sub-committee of The Hong Kong Polytechnic University.

143 *International role-modeling pedagogy.* This pedagogy was conducted in the
144 aforementioned course, using the format of student projects that involved interviews with
145 international experts who have developed occupational therapy-related theories or practice
146 models. To identify potential experts, the teaching team conducted a systematic search on
147 three databases (MEDLINE, CINAHL, and PsycINFO) using the search terms in relation to
148 “occupational therapy” and “model, theory, frame of reference, or framework,” before the
149 study began. A total of 117 occupational therapy-specific theories or practice models
150 reported between 1997 and 2017 were identified. A database (<https://ottheory.com>) was then
151 developed to archive these theories and practice models. Due to the tremendous volume of
152 search results, we selected only the 68 theories and practice models that were most common

153 or recently developed for inclusion in the database, based on our teaching experiences and
154 needs. We then wrote a brief summary of each theory or practice model, allowing students
155 to search for and choose international experts they were particularly interested in. We also
156 generated a student-interview preparation guide (including invitation email templates and
157 step-by-step interview questions) to help students contact and interview the experts. In
158 addition, we interviewed one developer of the Person-Environment-Occupation model (Law
159 et al., 1996) as a demonstration for the students. The interview video was shared with
160 students during the third week of class, when this model was taught.

161 When the interview projects began, students were divided into 16 groups of 6–7
162 students each. Each group was asked to browse the database and to choose its preferred
163 theories and/or practice models from the 68 ones. However, before this, the teaching team
164 had approached 34 experts who had email contacts and eight gave prior consent to be
165 interviewed. Thus, we decided to allocate one expert to two groups. If the students' selected
166 the experts who did not consent for an interview, they were informed by the teaching team
167 to select other experts. Using the first-come, first-serve principle, the first group whose
168 selection was matched with the experts' availability was assigned the role of inviting the
169 expert, arranging the date, and preparing ZOOM video-communications for the interview,
170 while the second matched group was assigned the role of interviewing the expert.

171 The interviews were conducted via the Internet, during which students used the
172 prepared guide to explore the expert's inspiration, perspective, and professionalism in a
173 semi-structured manner (see Table 1 for interview questions). When possible, the interviews
174 were video- or audio-recorded, so that they could be shared with students who had
175 contacted the expert but were not able to participate in the interview. The length of the
176 interviews completed ranged from 11 to 52 minutes (median = 21 minutes). After the
177 interviews, each student wrote a 500-word individual self-reflection report on his or her

178 observations of the expert's professionalism and personal strengths and weaknesses,
179 together with an action plan on developing a professional self. Each group of students also
180 created a 10-minute video presentation to introduce the theory or practice model they
181 interviewed the expert about. The self-reflection report and video presentation were
182 assessed at 10% and 25% of the final grade, respectively.

183 Students carried out interviews with experts, apart from one. Unfortunately, one
184 group got the time wrong, due to daylight saving; the expert had no alternative time free for
185 an interview. These students completed their video presentations on the allocated model and
186 then watched the researchers' interview with the developer of the Person-Environment-
187 Occupation model to complete their reflection reports.

188 *Procedures and Instrumentation.* A paper-based, pre-class survey was distributed to
189 students who consented to research participation during a break in the first lecture. This
190 survey included a section on professionalism, consisting of two open and two closed
191 questions. In the open questions, students wrote about the professional values and attitudes
192 (one question) and professional behaviors (the other question) they thought a competent
193 occupational therapist should have. The two closed questions used an 11-point numeric
194 rating scale and asked students to rate their current understanding of professional values and
195 attitudes, and professional behaviors, respectively. The numbers 0–10 were printed in a line
196 at equal intervals, with the anchors “completely low” (0) and “completely high” (10).
197 Students also provided their age and gender.

198 Between the second and eleventh week of the semester, the students attended regular
199 course activities (including weekly lectures, fortnightly tutorials, and one hospital visit) that
200 were not part of the international role-modeling pedagogy. Meanwhile, they conducted the
201 interview with the international experts by following the interview preparation guide. At the
202 end of the eleventh week, the students submitted their video presentations and individual

203 reflection reports via the Blackboard Learning Management System. A lecture on
204 professionalism and occupational therapy code of ethics was taught in the twelfth week of
205 this course, to avoid any influence on the students' self-reflections on the professionalism of
206 the international experts.

207 In the final lecture of the thirteenth week, the students completed a paper-based,
208 post-class survey during the break. Like the pre-class survey, this one contained two closed
209 questions designed to assess their understanding of professional behaviors, and professional
210 values and attitudes, respectively. This survey also included four closed questions to assess
211 their satisfaction (Table 2). The 11-point numeric rating scales used the anchors "completely
212 dissatisfied" (0) and "completely satisfied." (10) There were also two open questions: the
213 first asked what the students found useful in the international role-modeling project, while
214 the other asked how the international role-modeling project could be improved.

215 After the course final exam, a focus group of five students was convened to obtain a
216 more in-depth understanding of their experience during the international role-modeling
217 project. The five students were selected to reflect different groupings and levels of
218 understanding of professionalism, as reported in the post-class survey. The first author led
219 the focus group in a semi-structured manner. Topics included the students' experiences of
220 interviewing the experts and learning about occupational therapy theories and
221 professionalism, as well as the usefulness of the interview preparation guide. The focus
222 group was audio-recorded and lasted for approximately 40 minutes.

223 *Data analysis.* A descriptive analysis was used to summarize quantitative data
224 obtained from the pre- and post-class surveys. As the data were not normally distributed, the
225 median and interquartile range were reported. Wilcoxon signed-rank tests were used to
226 analyze the difference between pre- and post-class data. Significance levels were set at 0.05.

227 The students' responses to open questions about aspects of professionalism in the

228 pre-class surveys were analyzed qualitatively through inductive content analysis (Elo &
229 Kyngas, 2008). The first author and one project assistant coded the data independently,
230 created categories, compared their results, and discussed potential disparities. The second
231 author took part in the discussion and peer debriefing. The same process created categories
232 signifying professionalism in the international experts, as recorded in the student self-
233 reflection reports. Those categories were grouped into three main categories: *professional*
234 *values and ethics*; *professional attitudes and behaviors*; and *professional image,*
235 *communication, and collaboration*, based on Hordichuk et al.'s structure (2015) which was
236 established by a comprehensive literature review on professionalism in occupational therapy.
237 The occurrence frequency was quantified for each sub-category under the main categories.

238 The students' learning experiences, reported in the post-class surveys and the focus-
239 group audio file, were typed or transcribed into digital text files. Inductive content analysis
240 (Elo & Kyngas, 2008) was also used to analyze the textual content line-by-line to identify
241 emerging themes and representative quotations. The same author and project assistant
242 carried out the initial coding independently and discussed it iteratively; the other co-authors
243 engaged in peer debriefing.

244 **Results**

245 Of the original group of 102 students, 83 (81.4% response rate) returned the pre-
246 class surveys and 63 (75.9% retention rate) completed the post-class surveys. Table 2 shows
247 that most of the students were female (77.8%) with a median age of 18 years. No significant
248 differences between students who did/did not complete both surveys were found in relation
249 to gender ($\chi^2 = 2.459, p = 0.117$), age (Mann-Whitney $U = 524.000, p = 0.162$), pre-class
250 understanding of professional values and attitudes ($U = 488.000, p = 0.124$), or behaviors
251 ($U = 559.500, p = 0.447$).

252 As Table 2 shows, in the post-class surveys, students had significantly higher levels

253 of self-rated understanding of professional values and attitudes (Wilcoxon signed-rank $Z =$
254 $6.766, p < 0.001$) and behaviors ($Z = 5.671, p < 0.001$) than in the pre-class surveys. In
255 addition, their satisfaction with the interview preparation guide was high (median = 8).
256 Students were moderately to highly satisfied with the interactive environment, planning and
257 design, and internationalized learning experience in this project (median = 7).

258 The categories of professionalism coded from the students' pre-class surveys and
259 self-reflection reports are presented in Table 3. Although most sub-categories were similar
260 before and after the interview across the three main categories, frequencies changed. In the
261 professional values-and-ethics category, the top three sub-categories before the interview
262 were *professional integrity*, *inquisitiveness*, and *client-centeredness*; these became *client-*
263 *centeredness*, *critical thinking*, and *commitment to lifelong learning* after the interview. In
264 the category of professional attitudes and behaviors, *confidentiality*, *caring*, and *being*
265 *organized* were the three most frequently cited sub-categories before the interview.
266 Afterwards, the top three sub-categories were *passion*, *being knowledgeable*, and *being*
267 *observant*. In the category comprising professional image, communication, and
268 collaboration, the top sub-categories were *communication* and *collaboration* both before
269 and after the interview. In addition, eight sub-categories that were not identified in the pre-
270 class surveys emerged in students' reflection reports (Table 3).

271 Four primary themes related to the students' experience of learning about
272 professionalism emerged from the focus group and post-class surveys. The first theme was
273 *obtaining learning opportunities*. Students were grateful for the opportunity to interview an
274 insightful, professional occupational therapist who had developed a theory or practice
275 model. In one of the surveys, Student77 noted that, "... *the project allowed us to contact*
276 *very outstanding role models; we could learn so many things from them.*" In the focus group,
277 Student19 made a similar comment: "*This whole experience was just eye-opening to me*

278 *with somebody who is an OT and who is so professional and engaging as a person ... It was*
279 *a really cool experience.”*

280 *Understanding occupational therapy professionalism* was the second theme. In both
281 the surveys and the focus group, quite a few students said that the experts’ passion for
282 developing a new theory or practice model had enhanced their understanding of
283 professionalism. According to Student3, *“what she [the expert] has done is to tell us to be*
284 *lifelong learners because, in the model of occupational empowerment, there is a concept*
285 *that learns how to listen and that concept comes from a book that she [the expert] read*
286 *about 20 years ago. I think she reminded us to be lifelong learners ...”* (in the focus group).
287 Students also learned the positive attributes of professionalism from the experts’ advice on
288 being competent therapists. In her survey responses, Student91 said, *“She [The expert]*
289 *reminds us to be observant, lifelong learners, to understand the ever-changing world, and to*
290 *address environmental changes.”*

291 *Aspiration in the pursuit of professionalism* was the third theme. After interviewing
292 the experts, some students reflected potential changes in their own professional attitudes
293 and behaviors. As Student23 wrote, *“all of this [professional attitudes and behaviors]*
294 *knowledge will be useful for my further study and future career.”* In the focus group,
295 Student19 was impressed by the expert who experienced clients’ difficulties and tried to
296 help them. This student reflected on this professionalism by saying, *“What I should be, as*
297 *an OT, to be really passionate about helping people ... Really, it gave me a really good*
298 *perspective on who I am as a student and who I should aspire to be in my future career.”*

299 *Learning from practical trouble-shooting* was the last theme to emerge from the
300 students’ views on ways to improve the international role-modeling pedagogy. The students
301 found it difficult to find suitable interview times due to time-zone differences or the need to
302 collaborate with another group or to use video-communication software for the interview.

303 They suggested inviting more experts, giving students autonomy in choosing experts they
304 were interested in, providing flexible interview questions, and having more consultations.

305 **Discussion**

306 The qualitative analysis results of this study indicate that students had a positive
307 perception of the informal learning experience provided by the international role-modeling
308 pedagogy. The experience enhanced the students' perceived understanding of
309 professionalism and their awareness of specific professionalism attributes modeled by the
310 experts. However, the students also faced challenges in implementing the interview project,
311 suggesting the need for further improvement.

312 In medicine and healthcare education, while the role models commonly chosen are
313 experienced practitioners, on account of their clinical skills and good relationship with
314 clients (Silva et al., 2019), we chose international experts who had developed a theory or
315 practice model. Most of these experts had Ph.D. degrees, some had the role of clinical
316 educators or fieldwork coordinators, and all worked at academic institutions; they could
317 thus be considered good professional role models. Prior to the study, we wondered whether
318 first-year students would be too inexperienced to value the opportunity to interview
319 successful professional role models and to observe their professionalism. Perhaps
320 surprisingly, the students reported an improved understanding of professionalism after their
321 interviews. They were satisfied with the interactive environment and internationalized
322 learning experience. The themes from the focus group discussion and open survey questions
323 reinforced the positive findings and removed our original concern. According to Sullivan
324 and Thiessen's study of occupational therapy students' perspectives on professionalism
325 (2015), first-year students tend to understand professionalism by searching for examples,
326 such as image and presentation, that convey competence. It is possible that the distinguished
327 professional role models, with their clear professionalism and competence at developing

328 occupational therapy-specific theories or practice models, met the expectations of students
329 at the beginning of their professional behavior development (Kasar & Muscari, 2000). This
330 may be one explanation of the students' positive experience of learning professionalism
331 from those international experts.

332 It is interesting to note that the sub-categories of professionalism most frequently
333 cited by the students in pre-class surveys, were clinically oriented, contrasting with the sub-
334 categories mentioned in their self-reflection reports, as shown in Table 3. This change may
335 be attributable to the developmental process of understanding professionalism, which
336 requires experience derived from various sources and contexts of practice (Bossers et al.,
337 1999; Robinson et al., 2012; Sullivan & Thiessen, 2015). Before the semester, students
338 spent a week on clinical placements. They had therefore been exposed to practical aspects
339 of professionalism by clinical educators and reported a number of clinically oriented
340 attributes of professionalism in their pre-class surveys. These clinical experiences might
341 have contributed to the students' initial view of professional attributes and also affected
342 their observations on the international experts' professionalism in this study. In particular,
343 the international role models had a different focus from the clinical educators: they were
344 passionate about expanding the theoretical and practical knowledge base of occupational
345 therapy. From having a preliminary understanding of professionalism in clinical placements,
346 the students might be more aware and reflective of the international experts'
347 professionalism, viewed from the perspective of professional responsibility.

348 The context-specific nature of professionalism, which differed between clinical
349 educators and professional role models, is partially supported by Robinson et al. (2012),
350 who found that occupational therapy students focused on general elements of
351 professionalism and did not fully embrace all of the elements demonstrated by faculty
352 members. Similarly, Sullivan and Thiessen (2015) noticed a difference between their first-

353 and second-year occupational therapy students when it came to comprehending
354 professionalism. In that study, first-year students were found to rely on explicit examples
355 when attempting to understand professional behaviors; by contrast, second-year students
356 emphasized ethical and intrinsic aspects of professionalism, possibly drawn from their
357 extensive fieldwork experience. The findings of the present and previous studies highlight
358 the influence of experience on the development of students' understanding of
359 professionalism. As the international role-modeling pedagogy facilitated students'
360 awareness of different elements of professionalism, it may be used to complement clinical
361 education in teaching professionalism.

362 There were some challenges to implement the interviews with the experts. Two
363 groups of students who were trying to arrange interviews did not understand that daylight
364 saving begins on different days in other countries; as a result, they were one hour late for
365 their interviews. One expert realized what the problem was and delayed the interview, but
366 the other refused to reschedule. To address the challenge, we have modified the interview
367 preparation guide, which now mentions daylight saving time. The same group now has to
368 contact and interview the expert. As more theories and practice models are added to our
369 database, the students will have a wider choice of international experts and will gain
370 autonomy in choosing experts of interest. These improvements in the international role-
371 modeling pedagogy will be tested with future cohorts of first-year undergraduate students in
372 our university. Ongoing work is also being conducted to explore the perceptions of our
373 entry-level students about professionalism through interviewing international role models.

374 **Limitations**

375 This study has several limitations. First, it is a pilot application of the international
376 role-modeling pedagogy, involving first-year occupational therapy students at one
377 university in Hong Kong; these factors limit the generalizability of the study findings to

378 senior students or those studying at other institutions and in other countries. Second, some
379 students did not respond to the invitation to participate in the study; as a result, our sample
380 could be over-represented. Third, this study did not use standardized assessments of
381 professionalism as an outcome measure because we could not find one instrument assessing
382 students' professionalism specifically in occupational therapy. While 11-point numeric
383 rating scales were used to assess the students' perceived understanding of professionalism,
384 their psychometric properties were not tested. In addition, the students received one formal
385 lecture on professionalism in the course during the semester. As these factors may have
386 influenced the overall results, the study findings should be interpreted with caution.

387 **Implication for Occupational Therapy Education**

388 This study suggests that international role-modeling pedagogy is a viable approach;
389 it enhances the students' experience of learning professionalism by connecting them with
390 international experts who have developed theories or practice models. The process of
391 interviewing experts, observing their professionalism, and reflecting on personal changes in
392 professionalism facilitated the learning of students who participated in the project. These
393 strategies could become essential components in similar role-modeling projects designed to
394 target successful occupational therapists whose inventions were contributing to the
395 profession. As the study of professionalism can be a stand-alone course or part of a broader
396 course, educators need to carefully analyze their course content and objectives if they want
397 to adopt the international role-modeling pedagogy in their programs as informal curricula.
398 To avoid repeated interview invitations to international experts, video recordings of the
399 interviews completed in this study can be requested by direct contact with the researchers,
400 based on the experts' consent. Future studies could consider modifying the interview mode
401 to a TED-like presentation by international role models, to extend its application to students
402 over the world for learning about professionalism in occupational therapy.

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472 Table 1: Guided questions used to interview the international experts

Core question 1: What have inspired you to develop this theory/model/framework?

Sub-questions (when needed)

- a. What are the limitations of the existing theory/model/framework? What they do not have?
- b. What difficulties you have faced when developing the theory/model/framework?
How do you overcome the obstacles or challenges?

Core question 2: What does your theory/model/framework contribute to the OT practice?

Sub-questions (when needed)

- a. What kinds of age population/disabilities/domain of occupation/clients and practice settings does the theory/model/framework cover?

Core question 3: What is your advice on how students can become a competent OT in the future?

Sub-questions (when needed)

- a. How did you prepare yourself when you first see your client?
- b. What do you think is the most interesting thing to be an OT?
- c. Apart from [what the expert has mentioned], do you have any other advice to be a successful and competent OT?

Students' additional questions (when needed)

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474 Note: These guided questions were developed based on the first two authors' collaborative
475 brainstorm and experiences in teaching occupational therapy theories and
476 professionalism. The questions were then distributed to a group of five undergraduate
477 occupational therapy students for feedback, and were tested to interview one expert
478 who developed an occupational therapy-related framework. The final version of the
479 guided questions was generated after incorporating the students' feedback and the
480 pilot testing findings.

481 Table 2: Students' demographic characteristics, pre- and post-class understanding of
 482 professionalism, and satisfaction of the international role-modeling project

	Students who completed both surveys (n=63)	Students who did not complete post-class surveys (n=20)
Gender, n (%)		
Male	14 (22.2)	8 (40.0)
Female	49 (77.8)	12 (60.0)
Age, median (IQR)	18 (18–23)	18 (18–21)
Pre-class understanding of:		
Professional values and attitudes, median (IQR)	3.00 (0–5)	4.00 (0–6)
Professional behaviors, median (IQR)	5.00 (5–10)	4.00 (3–10)
Post-class understanding of:		
Professional values and attitudes, median (IQR)	7.00 (2–10)	–
Professional behaviors, median (IQR)	7.00 (4–10)	–
Post-class satisfaction of the project in:		
Student interview preparation guide in helping students to contact the international expert and conduct the interview, median (IQR)	8.00 (5–10)	–
The interactive environment created by the process of interviewing the international expert, median (IQR)	7.00 (4–10)	–
The planning and design of the interview project as internationalized learning experience, median (IQR)	7.00 (3–10)	–
The internationalized learning experience provided by the interview project, in comparison to traditional classroom activities, median (IQR)	7.00 (4–10)	–

483 Abbreviation: IQR, interquartile rang.

Table 3: Summary of the categories of professionalism perceived by students before and after interviewing with the international experts

Main category	Sub-categories identified from pre-class surveys (count)	Sub-categories identified from self-reflection reports (count)
Professional values and ethics	*Professional integrity (19)	Logicity (6)
	*Inquisitiveness (15)	Evidence-based (2)
	*Client-centeredness (14)	Justice (2)
	Ethics (13)	Critical thinking (1)
	Altruism (8)	Equality (1)
Professional attitudes and behaviors	*Confidentiality (45)	Positivity (7)
	*Caring (21)	Active listening (6)
	*Being organized (20)	Being passionate (5)
	Showing respect (18)	Self-reflection (5)
	Patience (15)	Diligence (4)
	Being empathetic (10)	Being sincere (3)
	Being vigilant (10)	Curiosity (3)
	Passion (10)	Being knowledgeable (2)
	Being initiative (9)	Flexibility (2)
	Being responsible (9)	Open-mindedness (2)
	Being observant (9)	Being compassionate (1)
	Clinical reasoning (8)	Being confident (1)
	Rapport building (8)	Being holistic (1)
	Being creative (7)	Commitment (1)
	Professional image, communication, and collaboration	*Communication (24)
Collaboration (9)		Communication (12)
Professional presentation (9)		Professional presentation (3)

* indicates the top sub-categories (i.e., most frequently cited) in the corresponding category.

Italics indicate new sub-categories that emerged from the students' self-reflection reports after interviewing the international experts.