#### Research article

# Maximising the First-Year Experience through the Incorporation of Generic Skills in a Medical Curriculum at the University of the Free State

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# Abstract

The highest attrition rates occur among first-year students. Universities have designed different curricular programmes, such as the development of generic skills, to address this challenge. In the medical school at the University of the Free State in South Africa, these skills were incorporated in the MBChB curriculum as an eight credit-bearing module in 2000 and later increased to 12 credits in 2009. To date, the effectiveness of this first-year module in equipping students with generic skills was last determined in 2002. The aim of this research was to determine the perceptions of first-year students regarding the effectiveness of this module in equipping them with generic skills. A questionnaire survey was distributed to 596 first-year medical students each year from 2013 to 2016. A focus group discussion (FGD) was held with 13 students who failed the first year of study in 2016 and had to repeat in 2017. According to the results, most students had a positive perception about the structure and organisation as well as the benefits of the module. However, from the questionnaire results, the overall rating of the effectiveness of the module was not very positive, with 35% of students rating it effective, 45% rating it relatively effective and 20% rating it not effective. However, during the FGD, seven (54%) of the 13 students rated it effective. In the qualitative statements of the questionnaire, a common comment related to the poor rating was about the unnecessary long hours in some sessions. Other comments from the questionnaire were medically related, with some students suggesting more practical and clinical demonstrations. During the FGD, students could not understand why their peers needed practical demonstrations in the first year. The incorporation of generic skills should be contextand discipline-specific and students should be "re-equipped" with certain skills during different stages of the curriculum.

# Keywords

First-year experience; students' attrition; generic skills module and development; high-impact practices; medical curriculum; students' perceptions; higher education; South Africa; University of the Free State

## Introduction

The high attrition and drop-out rates of first-year students in universities have been a challenging phenomenon and explored by many researchers (Arco-Tirado, Fernándes-Martín & Fernándes-Balboa, 2011; Badat, 2010; Council on Higher Education [CHE], 2013;

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Tinto, 1987; Tinto, 2014; Van Zyl, 2016; Veenstra, 2009). Many reasons, for example underpreparedness for university, lack of or poor skills such as time management, study strategies, academic literacy and inability to adjust to university environment, have been provided for these high drop-out rates (Boughey, 2013; Davids, 2014; Jaffer & Garraway, 2016; Mouton, Louw & Strydom, 2013; Underhill & McDonald, 2010; Wilson-Strydom, 2015).

In response to this trend, different countries have designed different structures. For example, the National Resource Centre (NRC) for the First-Year Experience (FYE) and Students in Transition, established at the University of South Carolina in the United States of America (U.S.A.), is known for its expertise and scholarship in this area (Latino & Ashcraft, 2012; Skipper, 2017; Young & Hopp, 2014). South Africa has followed suit by establishing the South African National Resource Centre (SANRC) for the First-Year Experience and Students in Transition (SANRC, 2017), which also provides expertise and scholarship.

One of the interventions that universities have designed and used for now over twenty years to ease the transition from school to university is the development of generic, also called general, skills of students (Christie, 1997; Beylefeld & Jama, 2002; Robley, Whittle & Murdoch-Eaton, 2005; Shakir, 2009; Oliver, 2013; Murdoch-Eaton, Louw & Bezuidenhout, 2016). Although most studies have focused on the effectiveness of such an intervention in equipping students with these skills at the beginning of the first year only, not much has been reported to further determine the perceptions of students who had to be "re-equipped" because they had to repeat the first year of study. Hence, the significance of this study lies in its aim to determine not only the perceptions of students at the very beginning of their first year at university, but to continue to determine their perceptions after "re-equipping" them because of a failed first year of study.

## Generic Skills

Studies in the field of generic skills development have been done in countries such as the U.S.A. (Benjamin et al., 2012), China (Leung, Leung & Zuo, 2014), Malaysia and Indonesia (Hadi & Ibrahim, 2013) and Singapore (Jacobs et al., 2014). Most of the studies, however, were done in the United Kingdom (U.K.) and Australia. In the U.K., the 1997 Dearing Report identified the key skills required by graduates to function in the workplace. This report was preceded by the U.K. General Medical Council's (GMC) review of the undergraduate medical curriculum, which recommended the introduction of student-selected components. These are components that allow students to study areas that are of particular interest to them in depth, while developing generic skills that are essential for professional medicine in the 21st century (Robley, Whittle & Murdoch-Eaton, 2005). Also termed "generic graduate attributes" or "transferable skills" that are applicable across most disciplines, these skills include oral and written communication, information technology, numeracy, teamwork, managing and organising learning and information retrieval, and critical analysis (Kember, 2009; Kember, Lueng & Ma, 2007; Murdoch-Eaton & Whittle, 2012; Shakir, 2009; Whittle & Murdoch-Eaton, 2005; Robley, Whittle & Murdoch-Eaton, 2005).

In Australia, generic skills are regarded as the qualities, skills and attributes a university believes its students should develop during their studies, to prepare them for employment (Barrie, 2007; Cumming, 2010; McNeil et al., 2012; Oliver, 2013). The Australian Learning and Teaching Council (ALTC) funded a National Graduate Attributes Project to identify strategies for embedding and assessing graduate attributes (Barrie, Hughes & Smith, 2009). According to Jones (2009), the Australian Technology Network of Universities further identified capabilities in a number of disciplines at different universities, and outlined steps towards its implementation in the programmes. As alluded to by Star and Hammer (2008), the changes in Australia's system of higher education led to a skills-based pedagogy, which became a useful way of addressing issues such as students' transition, development of appropriate discipline-specific standards and development of life-long learning.

In their study of British and South African medical schools, Murdock-Eaton et al. (2012) reported on the importance of generic skills integration in medical curricula and ensuring that these skills are tailored to the needs of students. In South Africa, Burch et al. (2013, p. 676) investigated the generic learning skills of academically-at-risk students at the University of Cape Town (UCT) and reported that "detailed knowledge of skills deficiencies provides an opportunity to offer tailored support promoting effective learning, thereby enabling students to achieve their true academic potential while also addressing the widening of access agenda". Notably, the Undergraduate Education and Training Subcommittee of the Medical and Dental Professions Board of the Health Professions Council of South Africa (HPCSA) has in collaboration with the training institutions and the South African Committee of Medical and Dental Deans, adopted seven "AfriMed" core competencies for undergraduate students in SA (HPCSA, 2014).

The renewal of the medical curriculum has been common in many universities across the world. For instance, Whittle and Murdoch-Eaton (2005) reported on the changes of Curriculum 2000 in the U.K. and how this affected students' key skills. In South Africa, Hartman et al. (2012) reported on the transformation of the UCT's curriculum with the aim to equip their graduates with the required competencies. Recently, Murdoch-Eaton, Louw and Bezuidenhout (2016) reported on the implementation of a revised curriculum at Stellenbosch University, stating that other than scientific knowledge, the generic learning skills of students should be developed and facilitated.

Similar to the renewal of the U.K. Curriculum 2000 and the medical curricula at UCT and Stellenbosch, the University of the Free State (UFS) revised their curriculum, also called Curriculum 2000. With these revisions, the importance of developing the general skills in the first year of study had been emphasised. In South Africa, this is particularly important because of the high attrition of especially black students who come from previously underrepresented groups and backgrounds, and eventually drop out in the first year of study. The Council on Higher Education (CHE, 2013) revealed that nearly a quarter of all students drop out after the first year at university.

Different forms of incorporation of the generic skills in first-year curricula have been suggested. For example, Latino and Ashcraft (2012) referred to First-Year Seminars (FYS) and reported on how these seminars should be designed, implemented and assessed. Skipper (2017) and Kuh (2008) referred to the FYS as High Impact Practices (HIP) that engage students in educationally purposeful tasks. Young and Hopp (2014) stated that the main objectives of a FYS are to develop a connection with the institution, develop knowledge of campus resources, and develop academic skills. Some of the FYS are in the form of credit-bearing modules (Lewin & Mawoyo, 2014), which is the case at UFS.

## Context

The context of this paper is a first-year module on general skills (MGEN1513) of the MBChB undergraduate medical curriculum in the School of Medicine at the UFS. When the School restructured the programme from a six-year to a five-year curriculum in 2000, one of the directives was to prepare medical students for the demands of the curriculum by helping them become proficient in general skills, such as time management, study techniques, group work, and research. In this curriculum, students who fail a module at the end of the first semester, cannot progress to the second semester. Another restructuring element in the curriculum was the design of a Learning Development Programme (LDP) presented in the second semester to accommodate first-year students who failed the first semester. Included in the LDP is a Life-long Learning Skills module (LLLS1524) that aims to "re-equip" these students with generic skills, thus preparing them to "re-enter" the first academic year in the following year (UFS, 2017).

In South Africa, the incorporation of generic skills in all curricula is a requirement of the South African Qualifications Authority (SAQA, 2000). In the medical curriculum at the UFS, a template for incorporating general skills in the curriculum was developed and mainly based on that of the University of Leicester in the U.K., which also revised its medical curriculum (Beylefeld & Jama, 2002). Therefore, the skills that were incorporated in the module are based on the SAQA requirements and the University of Leicester template.

At the outset, it was anticipated that some of those students who failed would be seriously lacking in the required competencies, while others would be typically negative towards reinforcement of skills they had acquired as a result of privileged schooling backgrounds. According to the results of the study undertaken to determine the students' experience of the module in 2000 and 2001, most students felt positive about the module. Those who were negative were from privileged schools, claiming that they had already acquired the skills (Beylefeld & Jama, 2002).

With further restructuring of the curriculum in 2009, the credits of this module were increased from 8 to 12, thus requiring an organisational restructuring of the module. As consistent with conventions of most curricula, the module has been evaluated by the students by means of a questionnaire survey.

# Methodology

A questionnaire was administered to all first-year undergraduate medical students at the end of the first semesters in 2013–2016, as part of the formal module evaluation of the MBChB curriculum. Although students' evaluations are subjective in nature, as asserted by Newton, Menna and Tank (2009), they provide invaluable information than can lead

to module improvement. This paper reports on the findings of questionnaires completed by 471 of 596 (79%) students between 2013 and 2016. Probably, some of the students who did not respond are senior students who had already done this module and those who were absent from class. The aim of the survey was to elicit information regarding the students' perceptions of the extent to which the module equipped them with the required generic skills to be competent in their studies, and focused on (i) structure and organisation; (ii) perceived benefits; (iii) overall rating; and (iv) suggestions for improvements. The aim of collecting the 2013–2016 data was to determine the trends in the students' perceptions, ultimately the review of the module.

In order to corroborate data from the questionnaire, a focus group discussion (FGD) was held with 13 (68%) of the 19 students who had failed at the end of the first semester of their first year in 2016, were admitted in the LDP in the second semester of the same year, and re-admitted in the first semester of their first year in 2017. Notably, these students were equipped with the generic skills in the MGEN1512 module in the first semester of 2016, "re-equipped" with the same skills in the second semester of 2016 in the LLLS1524 module when they were in the LDP, and again in the MGEN1512 module in the first semester of 2017 when they repeated the first year. The same broad themes about the structure and organisation of the module, perceived benefits, overall rating and suggestions for improvements, were used to guide the interview. However, the focus was on the aspects that most students either did not agree or agreed with, those that were either perceived very positively and negatively and those that were rated either high or low. Similar to the open-ended items in the questionnaire, students were given an opportunity during the FGD to comment and give suggestions.

# Results

The following results portray data for over four years of study and provide the trends in the students' perceptions over these years.

## Structure and organisation: questionnaire

Table 1 summarises students' responses with regard to the structure and organisation of the module. According to these results, the percentage of students who agreed with the statements ranged between 52% and 65% on most of the aspects regarding the structure and organisation of the module. There were three aspects that most students agreed with: first, 69% of the students agreed that there was sufficient time to achieve the outcomes of the module; second, 80% of the students agreed that the facilitators knew the content of the module; and third, 75% of the students agreed that facilitators were prepared for contact sessions. However, only 49% agreed that the teaching and learning activities helped them to achieve the stated outcomes, and only 48% agreed that the E-portfolio was an effective method to demonstrate competence. The most common response in the comments regarding the teaching and learning activities was that they would have preferred more clinical and practical demonstrations.

#### Structure and organisation: Focus group discussion

During the FGD, all 13 (100%) students agreed that there was sufficient time to achieve the outcomes of the module, the facilitators knew the content and were prepared for the contact sessions. Remarkably, they added that although there was sufficient time to achieve the outcomes, they did not use the time effectively, with all of them stating that they "waited until the last minutes". One of the students said "we have to be honest and take the blame here".

With regard to the E-portfolio, these students felt that it was very time-consuming to upload the items in the portfolio, especially those that had to be uploaded twice, and to keep up with the deadlines. One of the students said "it did not make sense to do some of the skills twice and double upload". Another comment was that the E-portfolio manager kept on "bugging" them with due dates and threatening to close the online platform at midnight.

When the students were asked to comment about the request to have more clinical and practical demonstrations, most of them seemed surprised. One of them mentioned that this was "very biased", because there were practical and clinical demonstrations in the other modules. Another student said, "I really don't understand what more they wanted, because they had practical sessions in Anatomy and the lecturers in MGEN did include practical sessions such as looking at references and doing them practically when we did references and plagiarism."

## Perceived benefits: Questionnaire

In Table 2, the questionnaire results with regard to the perceived benefits of the module are summarised. Between 53% and 64% of the students' perception was that they benefited from the skills taught in the module. There were five skills that students particularly thought they benefited from the most. These skills were dealt with in the sessions on plagiarism (75%), referencing technique (83%), medical terminology (91%), ethics and professional behaviour (76%), and research (72%). However, students felt they did not benefit from problem solving (49%), Introduction to Information Communication Technology (ICT) (49%), photo story (41%) and poster communication (41%).

The suggestions and comments were mostly on the time allocated for sessions, introduction to Sesotho/Afrikaans/English terms, medical terminology and photo story. In the case of time allocated for sessions, most students stated that some sessions for which two hours were allocated could be reduced to one hour, with the first hour dedicated to a lecture and the next hour for self-directed learning or getting notes for self-study. Concerning the session on Introduction to Sesotho/Afrikaans/English terms, 24% of the students requested more sessions for this, even suggesting a formal course, as is the case at other universities. With regard to medical terminology, approximately 19% of the students requested more practical medical terminology sessions.

Table 1: Students' responses regarding the structure and organisation of the module

				Disagree	0				Neutral					Agree		
	Questionnaire item	2013 N=97	2014 N=122	2015 N=115	2016 N=137	Total N=471	2013 N=97	2014 N=122	2015 N=115	2016 N=137	Total N=471	2013 N=97	2014 N=122	2015 N=115	2016 N=137	Total N=471
		(%) u	u (%)	n (%)	(%) u	n (%)	(%) u	(%) N	(%) u	0%) u	n (%)	0%) u	(%) u	(%) u	(%) u	(%) u
1.	The content of the module was well planned.	8 (8)	39 (32)	12 (10)	17 (12)	76 (16)	38 (39)	46 (38)	31 (27)	37 (27)	152 (32)	51 (53)	37 (30)	72 (63)	83 (61)	243 (52)
5 4 3	The content of the module provided opportunities to develop skills.	16 (16)	18 (15)	16 (14)	7 (5)	57 (12)	26 (27)	42 (34)	29 (25)	35 (26)	132 (28)	55 (57)	61 (50)	70 (61)	95 (69)	281 (60)
3.	The teaching and learning activities helped me to achieve the stated outcomes.	14 (14)	22 (18)	17 (15)	18 (13)	71 (15)	37 (38)	49 (40)	35 (30)	48 (35)	169 (36)	46 (48)	51 (42)	63 (55)	71 (52)	231 (49)
.4 s	The time to achieve the earning outcomes was ufficient.	3 (3)	6 (5)	9 (8)	11 (8)	29 (6)	25 (26)	40 (33)	26 (23)	29 (21)	120 (25)	69 (71)	76 (62)	80 (69)	97 (71)	322 (69)
5.	The workbook and guide to online learning was a valuable aid to learning.	14 (14)	19 (16)	20 (17)	30 (22)	83 (18)	37 (38)	49 (40)	28 (24)	32 (23)	146 (31)	46 (48)	54 (44)	67 (59)	75 (55)	242 (51)
.9	Tasks and assignments were clear.	16 (16)	25 (20)	17 (15)	15 (11)	73 (15)	21 (22)	32 (27)	18 (15)	31 (23)	102 (22)	60 (62)	65 (53)	80 (70)	91 (66)	296 (63)
7.7.	Tasks and assignments were inked to the expected outcomes that were stated.	5 (5)	6 (7)	5 (4)	11 (8)	30 (6)	33 (34)	41 (34)	24 (21)	41 (30)	139 (30)	59 (61)	72 (59)	86 (75)	85 (62)	302 (64)
	The E-portfolio is an effective way of demonstrating competence.	32 (33)	44 (36)	22 (19)	19 (14)	117 (25)	28 (29)	43 (35)	23 (20)	35 (26)	129 (27)	37 (38)	35 (29)	70 (61)	83 (60)	225 (48)
9.6	Overall the facilitators knew the content of the module well.	1 (1)	7 (6)	9 (8)	7 (5)	24 (5)	21 (22)	23 (19)	8 (7)	19 (14)	71 (15)	75 (77)	92 (75)	98 (85)	111 (81)	376 (80)
10.	Overall the facilitators were well prepared for contact sessions.	2 (2)	6 (5)	8 (7)	10 (7)	26 (6)	13 (13)	21 (17)	28 (24)	28 (20)	90 (19)	82 (85)	95 (78)	79 (69)	99 (73)	355 (75)

Table 2: Students' perceiv	ed bene	fits of th	e skills	taught	in the m	ıodule									
			Beneficia	1			Slig	ntly bene	ficial			No	ot benefi	cial	
Thoma	2013	2014	2015	2016	Total	2013	2014	2015	2016	Total	2013	2014	2015	2016	Total
THEINE	N=97	N=122	N=115	N=137	N=471	N=97	N=122	N=115	N=137	N=471	N=97	N=122	N=115	N=137	N=471
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
1. Learning styles	50 (52)	69 (56)	78 (68)	94 (69)	291 (62)	35 (36)	35 (29)	29 (25)	33 (24)	132 (28)	12 (12)	18 (15)	8 (7)	10(7)	48 (10)
2. Problem solving	31 (33)	58 (47)	62 (54)	80 (58)	231 (49)	28 (29)	41 (34)	38 (33)	43 (31)	150 (32)	38 (39)	23 (19)	15 (13)	14 (11)	90 (19)
3. Icebreaker & grouping	63 (65)	77 (63)	70 (61)	82 (60)	292 (62)	19 (20)	29 (24)	21 (18)	41 (30)	110 (23)	15 (15)	16 (13)	24 (21)	14 (10)	69 (15)
4. Group work	67 (69)	79 (65)	68 (58)	91 (66)	305 (65)	17 (18)	31 (25)	30 (26)	29 (21)	107 (23)	13 (33)	12 (10)	17 (15)	17 (13)	59 (12)
5. Introduction to ICT	43 (44)	57 (47)	59 (51)	70 (51)	229 (49)	28 (29)	36 (29)	37 (32)	51 (37)	152 (32)	26 (27)	29 (24)	19 (17)	16 (12)	90 (19)
6. Plagiarism	72 (74)	82 (67)	86 (75)	112 (82)	352 (75)	16 (16)	28 (23)	19 (16)	23 (17)	86 (18)	(9) (9)	12 (10)	10 (9)	2 (1)	33 (7)
7. Reference technique	83 (86)	102 (84)	99 (86)	105 (76)	389 (83)	8 (8)	16 (13)	10 (9)	27 (20)	61 (13)	6 (6)	4 (3)	6 (15)	5 (4)	21 (4)
8. Stress management	49 (51)	59 (48)	76 (66)	88 (64)	272 (58)	33 (34)	44 (36)	30 (26)	43 (31)	150 (32)	15 (15)	19 (16)	9 (8)	6 (4)	49 (10)
9. Information skills	49 (51)	64 (52)	64 (56)	78 (57)	255 (54)	35 (36)	44 (36)	37 (32)	45 (33)	161 (34)	13 (13)	14 (12)	14 (12)	14 (10)	55 (12)
10. Medical terminology	92 (95)	107 (88)	106 (92)	121 (88)	426 (91)	4 (4)	12 (10)	5 (4)	13 (9)	34 (7)	1 (1)	3 (2)	4 (4)	3 (2)	11 (2)
11. Professional & ethical behaviour	73 (75)	84 (69)	94 (82)	109 (80)	360 (76)	18 (19)	31 (25)	17 (15)	22 (16)	88 (19)	6 (6)	7 (6)	4 (3)	6 (4)	23 (5)
12. Research skills	74 (76)	84 (69)	88 (77)	95 (69)	341 (72)	15 (15)	30 (25)	22 (19)	27 (20)	94 (20)	8 (8)	8 (6)	5 (4)	15 (11)	36 (8)
13. Introduction to Sesotho/ Afrikaans/English	66 (68)	80 (66)	72 (63)	81 (59)	299 (63)	16 (17)	22 (18)	23 (20)	41 (30)	102 (22)	15 (15)	20 (16)	20 (17)	15 (11)	70 (15)
14. Study methods	48 (49)	59 (48)	71 (62)	81 (59)	259 (55)	28 (29)	39 (32)	34 (29)	42 (31)	143 (30)	21 (22)	24 (20)	10 (9)	14 (10)	69 (15)
15. Time management	46 (47)	60 (49)	66 (57)	83 (61)	255 (54)	30 (31)	41 (34)	37 (33)	35 (25)	143 (30)	21 (22)	21 (17)	12 (10)	19 (14)	73 (16)
16. Test & exam techniques	48 (49)	62 (51)	68 (59)	80 (58)	258 (55)	33 (34)	38 (31)	39 (34)	41 (30)	151 (32)	16 (17)	22 (18)	8 (7)	16 (12)	62 (13)
17. Integrated learning	57 (59)	72 (59)	77 (67)	85 (62)	291 (62)	31 (32)	33 (27)	32 (28)	33 (24)	129 (27)	9 (9)	17 (14)	6 (5)	19 (14)	51 (11)
18. Clinic reflection	46 (48)	56 (46)	94 (80)	107 (78)	303 (64)	37 (37)	44 (36)	18 (15)	22 (16)	121 (26)	14 (14)	22 (18)	3 (3)	8 (6)	47 (10)
19. Photo story	41 (42)	40 (33)	60 (52)	53 (39)	194 (41)	33 (34)	40 (33)	32 (28)	49 (36)	154 (33)	23 (24)	42 (34)	23 (20)	35 (25)	123 (26)
20. Poster communication	32 (33)	37 (30)	52 (45)	72 (53)	193 (41)	36 (37)	46 (38)	46 (40)	47 (34)	175 (37)	29 (30)	39 (32)	17 (15)	18 (13)	103 (22)
21. Oral presentations	57 (59)	73 (60)	77 (67)	96 (70)	303 (64)	25 (26)	32 (26)	20 (17)	31 (23)	108 (23)	15 (15)	17 (14)	18 (16)	10 (7)	60 (13)

#### Perceived benefits: Focus group discussion

During the FGD most of the students agreed with the results of the questionnaire, especially concerning the sessions that they thought were beneficial. Although they stated that they did not see the need to upload twice on the E-portfolio, it was very fulfilling to receive good marks from their peers for plagiarism activities. They stated, however, that the peer assessment should only happen once. Similar to the data from the questionnaire, there was a unanimous plea to increase the time for Sesotho/Afrikaans/English sessions or offer it as a course. Although 58% students indicated on the questionnaire that they benefited from the stress-management session, the students who participated in the FGD thought that this session was presented too early in the year. One of them said, "medical students experience stress later on, this should either be addressed later or repeated."

Contrary to the questionnaire findings, most students did not agree that the number of medical terminology sessions should be increased. One of the students said "that's not necessary, medical terminology in MGEN is what it is meant to be. It is an introduction, we do this in Anatomy anyway and a lot is repeated in other semesters and I guess during the coming years." The students were probed about the photo story and the poster communication, which both received a negative response from approximately 41% of students on the questionnaire. Their non-verbal response regarding the photo story strongly indicated that they fully agree with the poor response obtained with the questionnaire. Interestingly, one student stated "please press exit delete for that one. I don't know why it's there in any case." With regard to the poster communication, they also unanimously agreed with the questionnaire response. Actually, one of them said "oh another waste of our time, just keep it one hour lecture please, don't expect us to spend another hour making those drafts of the poster, we can do the rest for ourselves".

An alarming issue that came forward during the FGD, was their opinion concerning the professional and ethical behaviour session. One of the students stated that although 76% of the students in the questionnaire survey thought this session was beneficial, it did not help at all because most of their peers are "cheating a lot". With further probing, one student said, "our class is not ethical at all". They further referred to incidences of "cheating", "signing for each other on the attendance register", "sending each other messages during a test", "making gestures such as sighing and whispering as a clue to an answer" and "swapping clickers to share answers". It was quite disturbing when one of the students mentioned that "they were actually talking during the open book test". When asked about the role of invigilators, one of the students said, "they never get caught because of the large class. That is the real problem that this faculty must start to think of otherwise the cheating will never stop."

#### Overall rating: Questionnaire

The questionnaire results on the overall rating of the module (Table 3) showed that only 35% of the students thought the module was effective in equipping them with the required generic skills. Approximately 45% rated it reasonably effective. According to the statements

in the comments and suggestions section, once again students stated that some of the sessions are unnecessarily too long. Other common comments were "we already know these skills", "we already did this in high school" and "some of us are seniors, we did this".

Rating	2013 N=97	2014 N=122	2015 N=115	2016 N=137	Total N=471
	n (%)	n (%)	n (%)	n (%)	n (%)
Effective	27 (28)	46 (38)	42 (36)	52 (38)	167 (35)
Reasonably effective	43 (44)	44 (36)	54 (47)	70 (51)	211 (45)
Not effective	27 (28)	32 (26)	19 (17)	15 (11)	93 (20)

Table 3: Students' rating of the overall effectiveness of the module

#### Overall rating: Focus group discussion

During the FGD, eight (62%) of the 13 students indicated that they perceived the module as beneficial. However, none of them thought it was not beneficial. Notably, one student was of the opinion that the reason why only 35% of the students thought the module was beneficial was that most students "think" they know. This student further said: "You know medical students, when they arrive here with all those 9 to 10 distinctions, they think they know it all. Nobody wants to appear stupid." Interestingly, one of the students said: "Let them just fail before they realise the benefits of some ... not all of the sessions." Similar to the questionnaire response, another student was of the opinion that it was most probably senior students who thought the module was not beneficial.

When asked to comment about being exposed to the MGEN module twice and the LLLS module once, they recommended that skills such as conflict management and public speaking covered in the LLLS module should be included in the MGEN. Another suggestion was that the MGEN workbook should have more notes that they can "take home", which is the case in LLLS.

# Discussion

In general, the results from the questionnaire and FGD indicate that students had a positive perception about the structure and organisation of the module, especially regarding the content and facilitators' engagement. Despite the positive perception about sufficient time to achieve the outcomes, it is clear that designers of the module must review the amount of time allocated for certain teaching and learning activities, as suggested by Latino and Ashcraft (2012). This became evident in the comments of the students who suggested practical demonstrations and decreasing the time from two hours to one hour. Another matter to consider is that these students are digital natives and can function on their own; hence, the sessions on photo story and poster communication were perceived negatively. However, there should be caution in assuming that students can manage their time and are self-directed learners, because the comment "we waited until the last minute" from one of the FGD participants indicated that they could not manage their time effectively.

Despite the contradiction regarding the inclusion of clinical demonstrations, this suggestion was consistent with the view of Walker, cited by Entwistle (2010), who stated that teaching and learning activities must consider the interests of students. The results also demonstrate that South African medical schools must design the generic skills module according to their context. Hence, the request to increase or design the Sesotho/Afrikaans/ English content as a course is relevant for doctors who have to communicate with patients in these languages.

It is common knowledge that most medical students experience high levels of stress. The comments about incorporating the stress-management session later indicate that module developers must consider the timing of some sessions. It was pleasing to note that students thought they benefited from the research, referencing and plagiarism sessions, because the HPCSA (2014) expects medical students to be trained as scholars. Generally, the assessment of generic skills is challenging (Murdoch-Eaton & Whittle, 2012), which was evident from the comments on the E-portfolio assessment in this study. Therefore, module developers must design credible assessment methods that can be managed effectively by both facilitators and students.

Regarding the overall rating of the module, it became clear that students might not realise the relevance of generic skills development at the beginning of their first year. As one of them stated, "they think they know". Therefore, the importance of "re-equipping" them with these skills during different stages of the curriculum has to be emphasised. Although universities can consider a way of recognising prior learning for those who claim "they have already acquired the skills", it should be done with caution, as students might not realise the context in which these skills are taught and how they apply in their respective disciplines. Despite the 35% overall rating of the module, according to assessment records, the average academic performance (marks) of the students in the module was excellent (78%).

The surprising revelation about the unethical behaviour of first-year medical students, who are trained to be professionals, was disturbing. According to the HPCSA (2014), professional and ethical behaviour is one of the cornerstones of being a doctor. It highlights the importance of "re-equipping" students with skills during the different stages of their studies. The comment about the management of a large class is worth considering.

#### Conclusion

The primary focus of this study was to determine the perceptions of first-year medical students regarding the effectiveness of the generic skills module in facilitating transition from school to university. Similar to the situation in 2002 (Beylefeld & Jama, 2002), students still had a positive perception about the module. However, it is clear that module developers must continually revise the structure and organisation of the module, the teaching and learning activities and assessment practices. In addition, South African universities must develop first-year programmes and strategies directed at the transition from school to university, based on the specific programmes, disciplines and context. In this way, these programmes and strategies can be intentional and focus on activities that provide for High Impact Practices. From this study, it became clear that there must be congruence between

the time allocated for sessions and the teaching and learning activities. The findings further suggest revision of assessment methods that can be managed effectively by both students and lecturers.

Given the different perceptions of the students who did the LLLS module, it may be necessary to "re-equip" students with generic skills during different stages of the curriculum, thus providing for life-long learning. Overall, the findings of this study may be relevant for other higher education institutions that plan to incorporate generic skills into their disciplines.

A limitation of this study was that only one group of students who did the LLLS module in the LDP, were included in the study. Further studies are recommended to evaluate the perception of the students during the different stages of transition during their studies, which in medical education will be between the pre-clinical and clinical years. Other studies can be done to track the academic performance of these students throughout their studies.

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# Declaration of Interest

The author has no conflict of interest to report.

#### References

- Arco-Tirado, J.L., Fernández-Martín, FD. & Fernández-Balboa, J. (2011). The impact of a peer-tutoring program on quality standards in higher education. *Higher Education*, 62(6), 773–788. https://doi. org/10.1007/s10734-011-9419-x
- Badat, S. (2010). The challenges of transformation in higher education and training institutions in South Africa. Retrieved 28 September 2017 from www.dbsa.org/EN/About-US/Publication/Document
- Barrie, S.C. (2007). A conceptual framework for the teaching and learning of generic graduate attributes. Studies in Higher Education, 32(4), 439–458. https://doi.org/10.1080/03075070701476100
- Barrie, S.C., Hughes, C. & Smith, C. (2009). The National Graduate Attributes Project: integration and assessment of graduate attributes in curriculum. Sydney: Australian Learning and Teaching Council. Retrieved 29 September 2017 from www.voced.edu.au/content/ngv%3A64684
- Benjamin, R., Klein, S., Steedle, J., Zahner, D., Elliot, S. & Patterson, J. (2012). The case for generic skills and performance assessment in the United States and international settings. Retrieved 28 September 2017 from cae.org/images/.../The\_Case\_for\_Generic\_Skills\_and\_Performance\_Assessment.pdf
- Beylefeld, A.A. & Jama, M.P. (2002). Incorporating transferable skills in an undergraduate medical curriculum: learning from experience. South African Journal of Higher Education, 16(1), 113–121. https://doi.org/10.4314/sajhe.v16i1.25282
- Boughey, C. (2013). What are we thinking of? A critical overview of approaches to developing academic literacy in South African higher education. *Journal for Language Teaching*, 47(2), 25–42. https://doi. org/10.4314/jlt.v47i2.2

- Burch, V.C., Sikakana, C.N.T., Gunston, G.D., Shamley, D.R. & Murdoch-Eaton, D. (2013). Generic learning skills in academically-at-risk medical students: a development programme bridges the gap. *Medical Teacher*, 35(8), 671–677. https://doi.org/10.3109/0142159X.2013.801551
- CHE (Council on Higher Education). (2013). A proposal for undergraduate curriculum reform in South Africa: the case for a flexible curriculum structure. CHE: Pretoria. Retrieved 29 September 2017 from www.che.ac.za/sites/deafault/files/publications/Full\_Report.pdf
- Christie, P. 1997. Globalisation and the curriculum: proposal for the integration of education and training. In: P. Kallaway et al. (Eds.), *Education after apartheid: South African education in transition*. Cape Town: University of Cape Town.
- Cumming, J. (2010). Contextualised performance: reframing the skills debate in research education. Studies in Higher Education, 35(4), 405–419. https://doi.org/10.1080/03075070903082342
- Davids, M.N. (2014). Traditional tutorial system fit for purpose or past its sell-by date? University students' pedagogical experiences. South African Journal of Higher Education, 28(2), 338–354.
- Entwistle, N. (2010). Taking stock: an overview of key research findings. In: J. Christensen & J. Mighty (Eds.), Taking stock: research on teaching and learning in higher education (pp. 45–81). Montreal: McGill Queen University Press, .
- Hadi, Y. & Ibrahim, M.S.B. (2013). Students' generic skills at the National University of Malaysia and the National University of Indonesia. *Procedia – Social and Behavioural Sciences*, 83, 71–82. https://doi. org/10.1016/j.sbspro.2013.06.015
- Hartman, N., Kathard, H., Perez, G., Reid, S., Irlam, J., Gunston, G., Janse van Rensburg, V., Burch, V., Duncan, M., Hellenberg, D., Van Rooyen, I., Smouse, M., Sikakana, C., Badenhosrt, E. & Ige, B. (2012). Health Sciences undergraduate education at the University of Cape Town: a story of transformation. *South African Medical Journal*, 102(6), 477–480. https://doi.org/10.7196/SAMJ.5680
- Health Professions Council of South Africa (HPCSA). (2014). Core competencies for undergraduate students in clinical associate, dentistry and medical teaching and learning programmes in South Africa. Pretoria: HPCSA.
- Jacobs, J.L., Samarasekera, D.D., Shen, L., Rajendran, K. & Hooi, S.C. (2014). Encouraging an environment to nurture lifelong learning: an Asian experience. *Medical Teacher*, 36(2), 164–168. https://doi.org/10 .3109/0142159X.2013.852168
- Jaffer, F. & Garraway, J. (2016). Understanding gaps between students and staff perception of university study in South Africa. *Journal of Student Affairs in Africa*, 4(1), 65–76. https://doi.org/10.14426/jsaa. v4i1.145
- Jones, A. (2009). Generic attributes as espoused theory: the importance of context. *Higher Education*, 58(2), 175–191. https://doi.org/10.1007/s10734-008-9189-2
- Kember, D. (2009). Nurturing generic capabilities through a teaching and learning environment which provides practise in their use. *Higher Education*, 57(1), 37–55. https://doi.org/10.1007/s10734-008-9131-7
- Kember, D., Leung, D.Y.P. & Ma, S.F.R. (2007). Characterizing learning environments capable of nurturing generic capabilities in higher education. *Research in Higher Education*, 48(5), 609–632. https://doi. org/10.1007/s11162-006-9037-0
- Kuh, G.D. (2008). High impact practices: What they know, who has access to them, and why they matter. Washington, D.C.: Association of American Colleges & Universities (AACU). Retrieved 28 September 2017 from https://keycenter.unca.edu/sites/default/files/aacu\_high\_impact\_2008\_final.pdf
- Latino, J.A. & Ashcraft, M.L. (2012). The first-year seminar: designing, implementing, and assessing courses to support student learning and success. Volume 4. Using peers in the classroom. Columbia, SC: University of South Carolina, National Resource Center for the First-Year Experience and Students in Transition. Retrieved 28 September 2017 from https://eric.ed.gov/?id=ED558828

- Leung, K-C., Leung, EK.S. & Zuo, H. (2014). A study of the alignment of learning targets and assessment to generic skills in the new senior secondary mathematics curriculum in Hong Kong. *Studies in Educational Evaluation*, 43, 115–132. https://doi.org/10.1016/j.stueduc.2014.09.002
- Lewin, T. & Mawoyo, M. (2014). Student access and success: issues and interventions in South African Universities. Retrieved 28 September 2017 from www.inyathelo.org.za/images/publications/summary\_student\_ access\_success.pdf
- McKay, T.J.M. (2013). Embedding academic support within an academic discipline: a teaching model. South African Journal of Higher Education, 27(3), 682–695.
- McNeil, H. P., Scicluna, H.A., Boyle, P., Grimm, M.C., Gibson, K.A. & Jones, P.D. (2012). Successful development of generic capabilities in an undergraduate medical education program. *Higher Education Research & Development*, 31(4), 525–539. https://doi.org/10.1080/07294360.2011.559194
- Mouton, N., Louw, G.P. & Strydom, G.L. (2013). Restructuring and mergers of the South African postapartheid tertiary system (1994–2011): a critical analysis. *Journal of International Education Research*, 9(2), 127–144. https://doi.org/10.19030/jier.v9i2.7718
- Murdoch-Eaton, D., Louw, A.J.N. & Bezuidenhout, J. (2016). Effect of curriculum changes to enhance generic skills proficiency of 1st-year medical students. *African Journal of Health Professions Education*, 8(1), 15–19. https://doi.org/10.7196/AJHPE.2016.v8i1.414
- Murdoch-Eaton, D., Manning, D., Kwizera, E; Burch, V., Pell, G. & Whittle, S. (2012). Profiling undergraduates' generic skills learning skills on entry to medical school: an international study. *Medical Teacher*, 34(12), 1033–1046. https://doi.org/10.3109/0142159X.2012.706338
- Murdoch-Eaton, D. & Whittle, S. (2012). Generic skills in medical education: developing the skills for successful learning. *Medical Education*, 46(1), 120–128. https://doi.org/10.1111/j.1365-2923.2011. 04065.x
- Newton, B.W., Menna, J.H. & Tank, P.W. (2009). How to become an effective course director. New York: Springer. https://doi.org/10.1007/978-0-387-84905-8
- Oliver, B. (2013). Graduate attributes as a focus for institution-wide curriculum renewal: innovations and challenges. *Higher Education Research and Development*, 32(3), 450–463. https://doi.org/10.1080/072 94360.2012.682052
- Robley, W., Whittle, S. & Murdoch-Eaton, D. (2005). Mapping generic skills curricula: A recommended methodology. *Journal of Further and Higher Education*, 29(3), 221–231. https://doi. org/10.1080/03098770500166801
- Shakir, R. (2009). Soft skills at the Malaysian institutes of higher learning. Asia Pacific Education Review, 10, 309–315. https://doi.org/10.1007/s12564-009-9038-8
- Skipper, T.L. (2017). What makes first-year seminar high impact? An exploration of effective educational practices. (Research reports on college transitions No. 7). Columbia, S.C.: University of South Carolina, National Resource Center for the First-Year Experience and Students in Transition. Retrieved 28 September 2017 from files.eric.ed.gov/fulltext/ED573737.pdf
- South African National Resource Centre (SANRC). (2017). South African National Resource Centre for First-Year Experience and Students in Transition. Retrieved 28 September 2017 from www.sanrc.co.za
- South African Qualifications Authority (SAQA). (2000). National qualification framework and curriculum development. Pretoria: SAQA.
- Star, C. & Hammer, S. (2008). Teaching generic skills: eroding the higher purpose of universities, or an opportunity for renewal? Oxford Review of Education, 34(2), 237–251. https://doi.org/10.1080/ 03054980701672232
- Tinto, V. (1987). Leaving college: rethinking the causes and cures of student attrition. Chicago, IL: University of Chicago Press.

- Tinto, V. (2014). Tinto's South African lecturers. Journal of Student Affairs in Africa, 2(2), 5–26. https://doi. org/10.14426/jsaa.v2i2.66
- Underhill, J. & McDonald, J. (2010). Collaborative tutor development: enabling a transformative paradigm in a South African University. *Mentoring & Tutoring: Partnership in Learning*, 18(2), 91–106. https://doi. org/10.1080/13611261003678853
- University of the Free State (UFS). (2017). Faculty of Health Sciences Rule Book. Bloemfontein, UFS. Retrieved 28 September 2017 from apps.ufs.ac.za/dl/yearbooks/274\_yearbook\_eng.pdf
- Van Zyl, A. (2016). The contours of equality: the links between socio-economic status of students and other variables at the University of Johannesburg. *Journal of Student Affairs in Africa*, 4(1), 1–16. https:// doi.org/10.14426/jsaa.v4i1.141
- Veenstra, C.P. (2009). A strategy for improving freshman college retention. The Journal for Quality and Participation, January, 19–23. Retrieved 28 September 2017 from https://static.squarespace.com/ static/51fafa0ee4b0d906af53ce83/.../JQP%20article.pdf
- Whittle, S.R. & Murdoch-Eaton, D. (2005). Curriculum 2000: have changes in the sixth form curricula affected students' key skills? *Journal of Further and Higher Education*, 29(1), 61–71. https://doi. org/10.1080/03098770500037762
- Wilson-Strydom, M. 2015. University access and success: capabilities, diversity and social justice. London: Routledge.
- Young, D.G. (2016). The case for an integrated approach to transition programmes at South Africa's higher education institutions. *Journal of Student Affairs in Africa*, 4(1), 17–32. https://doi.org/ 10.14426/jsaa.v4i1.142
- Young, D.G. & Hopp. J.M. (2014). 2012–2013 National survey of first-year seminars: exploring high-impact practice in the first college year. Research reports on college transition No. 4. Columbia, SC: University of South Carolina, National Resource Center for the First-Year Experience and Students in Transition. Retrieved 28 September 2017 from https://eric.ed.gov/?id=ED546831

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