

AN EVALUATION OF CREATIVE AND VOCATIONAL EDUCATION AND THE CHANGING DEMANDS OF INDUSTRY COMPETENCIES

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ABSTRACT

The current study analysed how creative and vocational education and training systems are responding to the changing demands of industry competencies that appear to be evolving in response to dramatic shifts in the global economy impacting industries. Creative and vocational education in higher education is all about creativity and innovativeness. These are the most significant attributes that higher fashion education graduates must possess. The descriptive research design was adopted due to the nature of the study as there was a need to compare and analyse the responses from standardised questionnaires through the use of descriptive statistics. The population of this study focused on fashion students from higher education institutions in Ghana as well as some graduates practising their acquired skills in the fashion industry. Questionnaires were employed to gather data. The major empirical findings of this study demonstrate that competencies required most by the industry are higher and more diversified skills followed closely by relevant and valuable higher level skills.

Keywords: Creative and vocational education, competencies, curriculum, changing industry landscape

1. INTRODUCTION

Individuals in employment after graduation from school and how productive they are at work have much to do with the opportunities available to them in the acquisition and maintenance of the relevant skills acquired (ILO 2011). Traditionally any curriculum design focuses on information transfer and the acquisition of new knowledge and expertise that helps the student to apply this new knowledge in practice. However, a growing concern has emerged regarding the falling standards of education in Ghana and the inability of Higher Education (HE) institutions, particularly those offering creative and vocational education to equip their graduates with the qualifications and work-related skills needed to be employable (Mittlesteadt and Reeves 2003).

In the face of the changing industrial landscape worldwide over the past three decades, the gulf separating the world of learning from the world of work is becoming quite extensive. The former is often classroom-based and academic while the latter is mostly dominated by the practical demands of production processes, deadlines, and workplace. Change happens rapidly in the world of work these days. Besides, these changes are driven by innovation and developments in technology and markets. Keeping up with this pace of change is a continuing challenge for HE institutions (ILO 2011).

HE institutions are, therefore, expected to increase their responsiveness to these developments as well as to other societal interests and needs. Their curricular must be restructured to meet the requirements of an increasingly technologically oriented economy. HE institutions are expected to deliver the

requisite highly trained individuals with the required knowledge to equip a developing society like Ghana to address its national needs and participate in a rapidly changing and competitive world. The need for globally equivalent skills, therefore, raises the debate about curriculum relevance.

Hepburn (2011) explicates that, the opening of the world economy since the 2nd World War has accelerated over the past 25 years through global trade rounds, the growth of international capital markets, the expansion of multinationals and the flow of ideas around the world. These he said has transformed the world's economic structure. Hepburn acknowledges that productivity and competitiveness depend on the ability to produce highly skilled and adaptive knowledge workforce who can manage knowledge and information and adjust to volatile and unpredictable global markets (Hepburn 2011).

By implication, the workforce needed by industries today, must have well-developed problem-solving skills and be able to improve their repertoire of knowledge and expertise to the changing industrial landscape continuously. In such a context, it is commonly argued that the role of HE shifts from induction into the specialised knowledge of particular disciplines to the development of broad, generic and transferable skills.

In essence, HE institutions worldwide are being called upon to become more receptive to the needs of the knowledge economy. Hence the need for work-based learning. Primarily, education and skills development underpin any strategy of human development and productivity (Ministry of Education, 2014). It is through education that core competencies, knowledge and attitudes are acquired. However, the image, standards and, values of creative and vocational education remain elusive (UNESCO 2012). The aforementioned is as a result of the quality outcome issues it faces; hence, the need for it to be more receptive to industry demands. The fast-changing landscape of the industry has compounded these problems. An example is the poor quality of indigenous textiles and production methods within the industry; garment products did not meet the international trade criteria for Africa Growth and Opportunity Act (AGOA)'s international garment requirements and, therefore, was rejected.

This study aimed at investigating how industry needs can be met through Higher Fashion Education (HFE) curriculum in Ghana. The primary objective of this study is to establish how creative and vocational education and training systems are responding to the changing demands of industry competencies that appear to be evolving in response to dramatic shifts in the global economy already impacting industries. It analysed the effects of work-based learning on creative and vocational skills. The study is expected to make a significant contribution to the broader issue of the changing landscape of industry practice and the quality of higher creative and vocational education. Since it has emerged, as one of the effective human resource development strategies African countries need to embrace and to modernise their technical workforce for rapid industrialisation and national development (Afeti 2012).

1.1 Importance of Creative and Vocational Education

Creative and vocational skills affect people's lives and the well-being of nations in ways that go far beyond what can be measured by labour-market earnings and economic growth. These skills also relate to civic and social behaviour, as they affect democratic engagement and business relationships. Graduates with high levels of vocational skills are likely to feel they have a voice that can make a difference in their life. These are consistent across a wide range of countries, confirming that, the acquisition of specific skills has a profound relationship with economic and social outcomes in a wide variety of contexts and institutions (OECD 2012).

Foster's (1965) article on Vocational School Fallacy, which drew on research in Ghana, remains an

influential piece which is still widely referred to (Lauglo 2010). One of Foster's main assertions was that students perceive academic education to be more vocational than vocational education proper. He explains that since there were more (formal) employment opportunities for those with academic backgrounds compared to those with professional experience, academic education is, in fact, more vocational. Foster argued that labour market opportunities profoundly influence students, but are less affected by practices that attempt to re-orientate mindsets by making curriculums "vocalized." As Levesque (2011) puts it, from Foster onwards a range of studies has concluded that vocational education has not led to the assumed employment opportunities.

The primary role of HE, Harvey (2000) explains, is to transform students by enhancing their knowledge, skills, attitudes and abilities while simultaneously empowering them as lifelong critical and reflective learners. Maclean et al. (2013), emphasise that vocational education, which leads to the acquisition of knowledge, skills, and values, is a crucial lever of sustainable development. Indeed, higher levels of more relevant learning outcomes are prerequisites for the growth and advancement of any nation.

Beyond its well-established socio-economic role, creative and vocational education also has a crucial socialisation function through the shaping of personal and collective identities, the formation of responsible citizenship and the promotion of critical social participation. It is thus creating optimal contingencies for realising development goals (UNESCO 2012). According to UNESCO (2012), 'if education, learning and skills are to be seen as both enablers and drivers of inclusive and sustainable development, it is important to review the experience of education within the framework of the international development agenda' (p,4).

Most nations are faced daily with the challenge of improving the competencies of their workers to respond to their national development needs, and the demands of a rapidly changing, more globally competitive world. The future success of nations – industries – increasingly depends on the possession of relevant skills and knowledge by their citizenry. Many, both in the developing and the developed world, recognise the significant role skills acquisition plays in equipping individuals with the relevant skills and knowledge. Enabling them to participate effectively in the social, economic and technological innovation process (NICHE 2010).

Also, there are long-held perceptions in Ghana that, creative and vocational education is value for money. Political and policy statements and education reform efforts by successive governments have always maintained that investing in vocational education is value for money. These groups have historically seen some automatic links between the provision of relevant skills and subsequent employment. The reality of the skill-to-work connection is far more complex, and it is widely recognised amongst education and labour market experts that training does not equal jobs. However, the political driver of industrial policy in Ghana, as in many other developing countries, often trumps this view. Nonetheless, if skills do not lead to jobs, where is the value for money (Palmer 2012).

One of the essential features of creative and vocational skills are its orientation towards the world of work and the emphasis of the curriculum on the acquisition of employable skills. Pongo et al. (2014) suggested that a significant characteristic of vocational skills are that it can be delivered at different levels. It means creative and professional skills can respond, not only to the needs of various industries but also to the various educational needs of students from diverse academic as well as socioeconomic backgrounds. This training will prepare them for gainful employment and sustainable livelihoods. A skilled workforce is a core requirement for driving the engine of industrial and economic growth, and creative and vocational skills hold the key to building this technical and entrepreneurial workforce (Afeti 2012).

However, one disturbing issue about creative and vocational education in SSA is that, across most of these countries, training occurs in many different environments, both formal and informal, and in institutions, on-the-job or both. It can be of short duration (Palmer 2006) or long term. Given that

creative and vocational education can take so many different forms, in different settings, of various lengths in various countries, and be under the various ministries, comparative data on creative and vocational education systems are difficult to compile. Where it is compiled it has to be read with caution since what is classified as creative and vocational education or TVET in one country is not necessarily the same in another (Palmer et al. 2007).

1.2 Issues of Skills Mismatch Between Institutions and the Industry

According to Teichler (2015), the extent to which patterns of educational qualifications match the demands of the employment system is a frequent topic of research and policy debate. Several organisations and authors (ILO 2014), have tried to establish the extent to which qualifications correspond to occupational structure – horizontally regarding links between subjects and occupational categories and vertically relating to the appropriateness of the level of education to the status of occupation.

Teichler argues that concerns about a horizontal match are more pronounced in countries emphasising specialisation in teaching and employment than in countries considering education predominantly as a general preparation for possible assignments. These he indicates tend to be more pronounced as well regarding higher levels of education than lower ones. Teichler continues that, in the 1960s, concerns frequently voiced was that countries with a small proportion of the population with advanced education might fall behind others on economic growth. From the 1970s through to the 1990s, according to him, controversies on the agenda was whether a trend towards over-education or over-qualification could be observed (Teichler et al. 1980).

During the 1990s, stakeholders of education had mixed concerns over education in some areas and lack of competencies in others. Studies based on educational and occupational statistics often came to the conclusion that the expansion of advanced levels of education clearly surpassed the demand for the employment system. Studies based on employers' expectations similarly tended to support the idea of the substantial increase of over-education in the 1970s and 1980s, though they also point out a lack of competencies in some domains. In Ghana, for instance, the mismatch phenomenon between the skills possessed by graduates and those needed by firms has been widely acknowledged and reported. Hence, one can conclude that policy formulation is not rooted in evidence-based discussions to meet the goals of the education schemes of graduates (Bawakyillenuo et al. 2013).

2. METHODOLOGY

In this study, the descriptive research design was chosen to investigate Creative and vocational education and the changing demands of industry competencies. Furthermore, this study adopted the quantitative methodology. Quantitative research as inferred by Leavy (2017), provides clear statistical data for inferences and supports larger sample size which translates to more generalisability over the population being studied. Again Creswell (2015) notes that one benefit of the quantitative approach is that the outcomes are valid, reliable and generalisable to a more significant population.

The quantitative approach (Mertens 2010) was chosen based on the nature of the study and its methodological foundation. The target study population was the teachers of colleges of education in Ghana. Consequently, the purposive sampling technique was used to select both undergraduate and postgraduate fashion students from six (6) HE institutions in Ghana as well as some graduates practising their acquired skills in the fashion industry and administered with questionnaires.

According to Zhi (2014), purposive sampling is appropriate when the study aims to glean knowledge from targeted respondents deemed to have specific knowledge in the field of study.

3. RESULTS AND DISCUSSION

3.1 Factors Driving Industry Changes and Transformations in the Fashion Industry

Table 1: Factors driving changes and transformations in the fashion industry

Item	Frequency (Percent)					μ	$\pm SD$
	1	2	3	4	5		
Technology & innovation	12 (1.6)	34 (4.5)	90 (11.8)	226 (29.7)	385 (51.9)	5.56	1.03
Educational attainment	18 (2.4)	32 (4.2)	103 (13.5)	216 (28.4)	384 (50.5)	5.47	1.08
Competition	27 (3.5)	49 (6.4)	94 (12.4)	199 (26.1)	392 (51.5)	5.44	1.14
Globalization of markets	11 (1.4)	49 (6.4)	114 (15.0)	203 (26.7)	381 (50.1)	5.39	1.07
Environmental trends	17 (2.2)	50 (6.6)	105 (13.8)	249 (32.7)	340 (44.7)	5.22	1.07
Emerging markets	19 (2.5)	54 (7.1)	123 (16.2)	231 (30.4)	334 (43.9)	5.04	1.11
Economic conditions	33 (4.3)	66 (8.7)	143 (18.8)	202 (26.5)	315 (41.4)	4.74	1.20
Demographic trends	42 (5.5)	62 (8.1)	146 (19.2)	253 (33.2)	250 (32.9)	4.49	1.20
Political Reasons	120 (15.8)	97 (12.7)	179 (23.5)	154 (20.2)	211 (27.7)	3.64	1.43

1=not at all, 2=small extent, 3=some extent, 4=large extent, Very large extent=5, 2=15.042, df=4, p=.001, Kendall's Wa=.085, 2=511.811, df=8, sig=.001

Source: Fieldwork (2018)

Table 1 presents results regarding factors driving industry changes and transforming the fashion industry. It could be observed that on Technology and Innovation, about half ($n=385$, 52%) of the respondents stated it is to a very large extent driving and transforming the fashion industry, hence ranked first on Kendall's ranks of concordance with the highest mean value of ($\mu=5.56$, $\pm SD=1.03$). Besides, 226 (29.7%) of the respondents also pointed out the factor is to some extent driving the changes too. Again, out of 761 respondents, 384 (50.5%) of the respondents believe 'Educational Attainment' is also driving the industry which also obtained the second highest mean score of ($\mu=5.47$, $\pm SD=1.08$) thus ranked 2nd on the rank order. Furthermore, about half ($n=392$, 50.5%) of the respondents stated the fashion industry is changing to a very large extent by the interplay of competition in the industry.

Additionally, 199 (26.1%) of the respondents rather believe competition is to some extent changing the industry. Competition also attained the 3rd highest mean score ($\mu=5.44$, $\pm SD=1.14$). However, 211 (27.7%) of the respondents stated Political Reasons are behind changes and transformations taking place in the industry. On the contrary, a significant percentage ($n=120$, 15.8%) of the respondents disagreed that politics is playing a role in changing and transforming the industry and consequently ranked the lowest with the least mean value of ($\mu=3.64$, $\pm SD=1.43$). Implying it has the least influence on the changes and transformation taking place in the fashion industry.

The Kendall's result statistics of ($W_a=0.85$, $\chi^2=511.811$, $df=8$, $p<.05$) showed a statistically significant near perfect agreement between the ratings given by the respondents on the factors changing and transforming the industry.

3.2 Different Competencies Required by the Industry

Table 2: Different competencies required by the industry

Item	Frequency (Percent)					μ	$\pm SD$
	1	2	3	4	5		
Higher and more diversified skills	17 (2.2)	17 (2.2)	86 (11.3)	206 (27.1)	435 (57.2)	4.18	.93
Relevant and valuable higher level skills	11 (1.4)	18 (2.4)	97 (12.7)	223 (29.3)	412 (54.1)	4.07	.89
Computer and technical skills	10 (1.3)	25 (3.3)	113 (14.8)	193 (25.4)	420 (55.2)	4.02	.93
Skills that will benefit their business in the future	10 (1.3)	34 (4.5)	101 (13.3)	187 (24.6)	429 (56.4)	4.01	.95
Skills that improve productivity	13 (1.7)	30 (3.9)	93 (12.2)	217 (28.5)	408 (53.6)	3.97	.94
Well -articulated, vocational and technical skills	19 (2.5)	21 (2.8)	112 (14.7)	219 (28.8)	390 (51.2)	3.92	.97
Highly specialized technical skills	10 (1.3)	33 (4.3)	124 (16.3)	207 (27.2)	387 (50.9)	3.83	.96

1=not at all, 2=small extent; 3=some extent, 4=large extent, Very large extent=5, Wa=.006, df=6, 2=26.287, p=.001

Source: Fieldwork (2018)

Table 2 indicates the different types of competencies required by industry thence using Kendall's Coefficient of Concordance to rank the competencies as well. It could be observed that the more than half ($n=435$, 57.2%) with 206 (27.1%) of the respondents agreeing and strongly agreeing respectively that the fashion industry requires individuals with higher and more diversified skills. Reference to Kendall's ranks the item obtained the highest mean score of ($\mu=4.18$, $\pm SD=.93$) hence ranked as first implying it is the competence required the most in the fashion industry. Again, about half ($n=412$, 54.1%) of the respondents believe the fashion industry is in need of relevant and valuable higher level skills. Close to one-third ($n=223$, 29.3%) of the respondents also supported the assertion that the industry seeks relevant and valuable higher level skills. Relevant and valuable higher level skills obtained the second highest mean score of ($\mu=4.07$, $\pm SD=.89$) hence ranked as the second most required competency by the fashion industry.

The results show that about half ($n=420$, 55.2%) and 193 (25.4%) of the respondents believe the industry requires people with computer and technical skills competencies to work in the industry. Computer and technical skills obtained the third highest ratings among the respondents with a mean value of ($\mu=4.02$, $\pm SD=.93$). However, concerning highly specialised technical skills, just about half ($n=387$, 50.9%) of the respondents and 207 (27.2%) of the respondents agreed that the industry requires such competencies. That notwithstanding, the spread of responses along the scale meant that the item was ranked the lowest among the raters with the mean score of ($\mu=3.83$, $\pm SD=.96$), hence ranked the lowest among the competencies needed for the fashion industry.

Kendall's Coefficient of Concordance statistics of ($W_a=.006$, $df=6$, $\chi^2=26.287$, $p<.05$) shows that there was statistically no agreement found between the respondents on the competencies required by the industry to meet the modern demands of the industry. However, the results were statistically significant.

3.3 Higher Education Response to Changing Industry Competencies

Table 3: Higher education response to changing industry competencies

#	Item	Freq. (n) (Percent %)					μ	$\pm SD$
		1	2	3	4	5		
1	Development and expansion of units of competency	14 (1.8)	29 (3.8)	136 (17.9)	229 (30.1)	353 (46.4)	4.15	.97
2	Assisting learners to acquire technical competencies	19 (2.5)	36 (4.7)	101 (13.3)	226 (29.7)	379 (49.8)	4.20	1.00
3	Offering current, relevant, demand driven, flexible courses	38 (4.3)	47 (6.2)	153 (20.1)	246 (32.3)	282 (37.1)	3.92	1.12
4	Availability of qualified lecturers with industry experience	25 (3.3)	65 (8.5)	122 (16.0)	232 (30.6)	317 (41.7)	3.99	1.10
5	Use of Competency Based Training (CBT)	26 (3.4)	58 (7.6)	133 (17.5)	210 (27.6)	334 (43.9)	4.01	1.12
6	Adequate infrastructure to provide quality teaching	62 (8.1)	90 (11.8)	132 (17.3)	195 (25.6)	282 (37.1)	3.72	1.29
7	Measurable outcomes relevant to improving businesses	28 (3.7)	66 (8.7)	132 (17.3)	283 (37.2)	252 (33.1)	3.87	1.08
8	External and Internal auditing and methods of assessment	50 (6.6)	69 (9.1)	142 (18.7)	233 (30.6)	267 (35.1)	3.79	1.20
9	Courses tailored to changing industry needs	33 (4.3)	84 (11.0)	149 (19.6)	218 (28.6)	277 (36.4)	3.82	1.16
10	Acquisition of employable skills related to the labour market	23 (3.0)	68 (8.9)	146 (19.2)	177 (23.3)	347 (45.6)	3.99	1.13

1=Not at all, 2=Small extent, 3=Not Sure, 4=Some Extent, 5=Very Large Extent

Source: Fieldwork (2018)

Table 3 presents responses to Higher Education's response to changing industry demands and requirements. On the issue of developing and expanding units of competencies, the majority ($n=353$, 46.4%) of the respondents indicated the institutions are to a very large extent developing and expanding units of competencies as a result of changes in industry practice and advances in technology. Additionally, 229 (30%) of the respondents agreed the institutions are only doing this to a large extent. The item obtained a mean score of ($\mu=4.15$, $\pm SD=.97$) suggesting responses were towards the positive end of the rating scale.

Again, as Table 3 points out, nearly half ($n=379$, 49.8%) of the respondents agreed that the institutions are to a considerable extent are providing learning activities for learners that will help them develop the required technical competencies as well as their ability to use relevant technologies. Also, 226 (29.7%) of the respondents supported this position by affirming the institutions are to a large extent doing this. There was a mean score of ($\mu=4.20$, $\pm SD=1.00$) indicating the responses were towards the agreement end of the scale.

Further, results from the Table 3 show that majority, about ($n=282$, 37%) of the respondents agreed that to a very large extent the institutions are offering current, relevant, demand-driven, flexible courses. About 246 (32%) of the respondents also supported to a large extent the notion that the institutions are offering current, relevant, demand-driven and flexible courses. The mean score of ($\mu=3.92$, $\pm SD=1.12$) shows the indifference among the respondents as the responses shifting towards the agreement end of the scale.

Similarly, about ($n=317$, 42%) of the respondents believed that the HE institutions are responding to a very large extent the changing demands of the industry by employing qualified lecturers with industry experiences to teach the various vocational and technical courses in HE institutions. Nonetheless,

about 232 (31%) of the respondents perceive the institutions be doing this to a large extent. Mean scores of ($\mu=3.99$, $\pm SD=1.10$) suggest that most of the responses were towards the agreement end of the scale.

Again, the results established that about ($n=234$, 44%) of the respondents agreed that HE institutions are to very large extent employing the use of Competency Based Training approaches in enhancing quality as a response to the changes industry practice and advances in technology. That notwithstanding, approximately 210 (28%) of the respondents also agreed that their institutions are only to a large extent using Competency Based Training to enhance the quality of teaching and training in the institution. The mean score of ($\mu=4.01$, $\pm SD=1.12$) infers responses were skewed towards the positive end of the rating scale.

Likewise, about ($n=282$, 37%) of the respondents agreed that their institutions are to a very large extent having adequate infrastructure to provide quality teaching in response to the ongoing industry practices. More so, about 195 (26%) of the respondents also affirmed that their institutions to a large extent have adequate infrastructure to provide quality teaching. Mean scores on the item ($\mu=3.72$, $\pm SD=1.29$) showed responses were generally concentrated on the mid-point of the rating scale.

Also, the majority ($n=283$, 37%) of the respondents indicated their institutions as a response to changing industry demands are to a large extent measuring outcomes relevant to improving businesses. Also, approximately 252 (33%) of the respondents indicated that their institution to a very large extent is measuring outcomes that are relevant to improving businesses. The mean score of the item ($\mu=3.87$, $\pm SD=1.08$) showed that generally responses were centred on the mid-section of the rating scale.

More so, the majority ($n=267$, 35%) of the respondents agreed that HE institutions are to a large extent employing external and internal auditing and methods of assessment as a way of responding to changes in industry demands for competencies. Also, about 233 (31%) of the respondents similarly agreed to that assertion that HE's are responding to a large extent. The item obtained a mean score of ($\mu=3.79$, $\pm SD=1.20$) showing that again, responses were around the mid-point of the rating scale.

Additionally, ($n=277$, 36%) of the respondents consented that HE institutions are to a very large extent tailoring their courses to meet the changing industry needs. Similarly, about 218 (29%) of the respondents asserted that their institutions to a large extent are tailoring their courses to the changing requirements of the industry. Mean scores of ($\mu=3.82$, $\pm SD=1.16$) suggest responses skewed towards the midpoint of the scale.

Again, about ($n=247$, 46%) of the respondents' concurred that, in response to the changing demands of the competencies needed by the industry, HE institutions to every large extent are equipping students with employable skills relative to the labour market. Additionally, about ($n=218$, 23%) of the respondents established that the institutions are only to a large extent providing students with employable skills that reflect the demands of the labour market. Mean scores of ($\mu=3.99$, $\pm SD=1.13$) show that responses were generally towards the positive end of the rating

4. CONCLUSION

The role of HE institutions in the future and their capacity to radically transform themselves remain uncertain. HE institutions in Ghana must acknowledge the many reasons why the twenty-first century HE learning must be different. They must decisively appraise traditional training to determine whether they are living up to current expectations and assess how successful their individual institutions are, in equipping students to compete in a global economy. Each nation has its specific vision of what an HE education should look like. Innovations that produce successful learning in one nation can have a ripple effect as other nations adopt and adapt these methods for their specific use. With increased international cooperation and collaboration, Ghana can participate in building a global learning network as dominant and pervasive in all spheres especially in higher fashion education. If HE institutions in Ghana fail to address these areas with rigour and persistence, fashion education and the global fashion industry will fail.

5. RECOMMENDATIONS

There is a need to improve HE creative and vocational education systems' responsiveness to labour market demands and ensure that students complete their schooling with skills needed to find work or be self-employed, and this requires the collaboration of employers as well as institution authorities. People with irrelevant vocational skills constitute a high proportion of the population in Ghana, and this is a dangerous quandary as they do not possess the minimum skills required by the labour market. The government must support students' participation in education. Actions on a national level are also desirable to circumvent the creation of isolated policies and to ensure a better synergy between economic advancement and innovative policies on the one hand, and training and labour market strategies on the other.

Again, creative and vocational courses in the HE institutions should be modified to be more practically oriented or competency-based to equip graduates with more practical skills to enable them to fit conveniently into the industry after completion.

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