THE ASSESSMENT OF PROFESSIONAL STANDARD COMPETENCE OF TEACHERS OF STUDENTS WITH VISUAL IMPAIRMENTS

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The purpose of this study was to assess the level of competence needed for teachers of the visually impaired. The assessment was based on Professional Standard Competence developed by the Council for Exceptional Children (CEC) for special education teachers in 2001. The researchers used questionnaires to acquire information about 190 South Korean teachers of students with visual impairments.
The researchers found that participants scored higher on the degree of importance *section than on* the degree of accomplishment *section. Although scores on* the degree of accomplishment *section were lower than the ones on* the degree of importance *section, they were rated as average. In addition, in the competence area,* the degree of importance *section was the highest in* Strategy for the reading and writing of Braille *and was the lowest in* Historical foundation of education of individuals with visual impairments. *The scores on* the degree of accomplishment *section were the highest in the* Strategies for teaching Braille reading and writing *and were the lowest in* Use disability-specific assessment instrument.
The findings of the degree of importance *section showed that there was no difference between these teachers' educational backgrounds and their teaching experiences. However, there was a significant variation of 1% in* Communication*,* Professional and ethical practice*, and* Collaboration *among the teacher groups of kindergarten, primary, junior high and high school. This study also showed a significant variation of 5% in* Learning environment and social interaction *and* Assessment *among these groups.*

South Korean students with visual impairments have various academic achievement levels as well as many types of visual impairments from mild to severe. Students' differential academic and impairment levels force special education teachers to develop their abilities and qualifications according to the students' complex characteristics. The basic and fundamental professionalism of teachers for the visually impaired is principally constructed during their education and preparation, and is developed during their teaching experiences. Therefore, South Korea's universities have to make an effort to improve pre-service teachers' professionalism (Lim, 2001).

The competence required in competency-based teacher education (CBTE) has been developed since the 1970s in the United Sates. The U.S. teacher education programs tend to have disseminated competence-based teacher education since the 1970s and the teachers of students with visual impairments have acquired professional abilities (Council for Exceptional Children; 1993, 1995, 1997; Lee, 1986; Spungin, 1977). While the United States has periodically developed special education teacher preparation programs through the Council for Exceptional Children (CEC), South Korea has neither developed nor used the standards of professional competence of special education teachers in universities and/or related institutions (Lim, 2001).

The CEC developed a new standard regarding special education teachers' professional competence in 2001 (CEC, 2001). The new standard is composed of 10 domains (i.e. Foundations, Development and Characteristics of Learners, Individual Learning Differences, Instructional Strategies, Learning Environments & Social Interactions, Communication, Instructional Planning, Assessment, Professional & Ethical Practice, and Collaboration). It is also subdivided into 1) the common and core areas which are special education teachers' basic qualification and 2) the special areas which are special education teachers' intensified major courses.

The common and core areas have 126 items which include 54 knowledge areas and 72 skill areas in 10 domains, and are composed of the same content in seven teacher areas, excluding *teachers of the gifted*. On the other hand, special areas are composed of 474 items which include 259 knowledge areas and 215 skill areas in eight teacher areas such as; *teachers of students with visual impairments*; *teachers of the deaf; teachers of students with physical and health impairments*; *teachers of students with emotional and behavioral disorders; teachers of students with mental retardation and developmental disabilities*; *teachers of students with learning disabilities; teachers in early childhood special education;* and *teachers of the gifted.*

In addition, standard competence is composed of 69 items (48 knowledge areas and 21 skill areas) in 10 domains. The CEC uses these areas of knowledge and skill to assess the standards of special education teachers' professional competence. Many countries, including the United States and the United Kingdom, establish the standards for the preparation of special education teachers according to each disability area and help special education teachers enhance their professionalism (Lim, 2001; Winzer & Mazurek, 2000). Similarly, South Korea's universities and institutions, which educate special education teachers, need to create and develop standards in order to improve special education teachers' professionalism. However, South Korea does not yet have an appropriate program to assess individual teachers. Therefore, the researchers decided to assess South Korean special education teachers through the use of the standard competence items developed by the CEC in 2001.

Purpose of the Study

The purpose of this study was to assess the following two aspects about standard competence required of teachers for students with visual impairments. First, this study was meant to assess *the degree of importance* and *the degree of accomplishment* regarding teachers' competence (*the degree of importance* refers to how much importance teachers place on the items related to the teachers' competence and *the degree of accomplishment* refers to how much teachers actually implement the items related to the teachers' competence). Second, this study was meant to assess the teachers' differences in *the degree of importance* according to grade level, educational background, and work experience.

Research Questions

The research questions that guided this study were as follows:

1. How competent were the South Korean special education teachers?
2. What was the relationship between their professionalism and their competence?

Method

Participants

The researchers surveyed 250 South Korean special education teachers in 12 special schools for students with visual impairments. All the special education teachers had their own knowledge and background about the education for students with visual impairments. The researchers received response letters from 212 teachers (84.8%). Since 22 response letters did not show enough information, the researchers decided to exclude these response letters. The table below shows the 190 teachers' information about grade level, educational background, and work experience.

Table 1:
Teachers' population according to grade level, educational background, and work experience

Grade level				Educational background			Work experience		
Kinder-garten	Elemen-tary School	Junior High School	High School	Special education major as an undergraduate school degree	Did not major in special education	Special education major as a graduate school degree	Less than five years	From six to 10 years	11 years or more
19	58	53	60	104	36	50	97	33	60

10% of respondents were from kindergarten teachers, 30.5% from elementary school teachers, 27.9%

from junior high school teachers, and 31.6% from high school teachers. Regarding educational background, 54.7% of teachers had a special education major as an undergraduate school degree, 18.9% of teachers did not major in special education, and 26.3% of teachers had a special education major as a graduate school degree. With work experience, 51% of teachers had less than five years of experience, 17.4% of teachers had six to 10 years of experience, and 31.6% of teachers had more than 11 years of experience.

Examination instrument

The researchers rated the participants by using only 69 items including the areas of knowledge and skills in the 10 domains developed by the CEC in 2001. The researchers translated these examination items from English to Korean, and helped the South Korean special education teachers respond to the research questionnaires. The number of items per domain was as follows:

Table 2:
The number of items per domain of the questionnaires

Domain	Knowledge	Skill	Total
1.0 Foundation	6	0	6
2.0 Development & Characteristics of Learners	6	0	6
3.0 Individual Learning Differences	3	0	3
4.0 Instructional Strategies	19	5	24
5.0 Learning Environments & Social Interactions	2	3	5
6.0 Communication	1	1	2
7.0 Instructional Planning	2	3	5
8.0 Assessment	6	6	12
9.0 Professional & Ethical Practice	1	1	2
10.0 Collaboration	2	2	4
Total	48	21	69

Procedures

In order to survey teachers with/out visual impairments, the researchers translated the items of standard competence into Braille, large print, and regular print. The researchers explained the questionnaires by telephone or email before distributing them, and sent the questionnaires to schools for students with visual impairments on July 5, 2003. In order to help teachers send back their response letters more easily, the researchers enclosed envelopes for the response letters. The researchers received response letters until July 30, 2003.

Analysis methods

The researchers analyzed the response letters with the following methods:
First, the researchers used a five-point likert scale to assess competence. The researchers assessed the means and the standard deviations from the examination results of a five-point likert scale.
Second, the researchers used one-way ANOVA to assess the inter-group differences of all the 10 domains according to grade level, educational background, and work experience.

Results and Interpretations

The analysis of the degree of importance *section and* the degree of accomplishment *section*

Table 3 below shows the respondents' ranking of knowledge and skill required for teachers of students with visual impairments. It indicates the ranking of each item among 69 items. The ranking is about the ranking of *the degree of importance* section and *the degree of accomplishment* section among 69 items in 10 domains of standard competence.

Table 3:

Respondents' ranking and mean of knowledge and skill required for teachers of students with visual impairments

Table 3-1: Respondents' ranking and mean regarding *Foundation*

Ranking and Mean		Item	Knowledge (K) or Skill (S)
Importance*(**)	Accomplishment* (**)		
29*(4.19**)	66* (2.81**)	1.1. Federal entitlements that provide specialized equipment and materials for individuals with visual impairments	K
69 (3.57)	29 (3.18)	1.2. Historical foundation of education of individuals with visual impairments	K
41 (4.08)	15 (3.34)	1.3. Educational definitions, identification criteria, labeling issues, and incidence and prevalence figures for individuals with visual impairments	K
46 (4.02)	31 (3.17)	1.4. Basic terminology related to the structure and function of the human visual system	K
38 (4.10)	33 (3.17)	1.5. Basic terminology related to diseases and disorders of the human visual system	K
40 (4.09)	25 (3.19)	1.6. Issues and trends in special education and the field of visual impairment	K
8 (4.00)	5 (3.14)	The ranking and mean out of 10 domains	

*: Ranking out of 69 items **: Mean by the five-point likert scale

Table 3-1 implies that although respondents consider some items such as 1.1. to be important, they did not make much effort to implement these items. These evaluations are similar in the following tables.

Table 3-2: Respondents' ranking and mean regarding *Development and Characteristics of Learners*

Ranking and Mean		Item	Knowledge (K) or Skill (S)
Importance	Accomplishment		
67 (3.76)	62 (2.93)	2.7. Development of the human visual system	K
31 (4.17)	22 (3.21)	2.8. Development of secondary senses when vision is impaired	K
20 (4.19)	11 (3.35)	2.9. Effects of visual impairment on development	K
3 (4.45)	3 (3.56)	2.10. Impact of visual impairment on learning and experience	K
23 (4.26)	9 (3.38)	2.11. Psychosoial aspects of visual impairment	K
62 (3.80)	67 (2.77)	2.12. Effects of medication on the visual system	K
6 (4.12)	3 (3.19)	The ranking and mean out of 10 domains	

In table 3-2, respondents highly rated and implemented item 2.10. This implies that respondents generally consider that visual impairment would be greatly related to learning and experience.

Table 3-3 implies that respondents will play a very important role in students' behavior as shown in the evaluation of 3.15.

Table 3-3: Respondents' ranking and mean regarding *Individual Learning Differences*

Ranking and Mean		Item	Knowledge (K) or Skill (S)
Importance	Accomplishment		
14 (4.32)	5 (3.45)	3.13. Effect of visual impairment on the family and the reciprocal impact on the individual's self-esteem	K
9 (4.38)	17 (3.32)	3.14. Impact of additional exceptionalities on individuals with visual impairments	K
5 (4.43)	2 (3.57)	3.15. Attitudes and actions of teachers that affect the behaviors of individuals with visual impairment	K
1 (4.37)	1 (3.44)	The ranking and mean out of 10 domains	

Table 3-4: Respondents' ranking and mean regarding *Instructional Strategies*

Ranking and Mean		Item	Knowledge (K) or Skill (S)
Importance	Accomplishment		
1 (4.59)	1 (3.65)		K
8 (4.39)	6 (3.41)	4.16. Strategies for teaching Braille reading and writing	K
		4.17. Strategies for teaching handwriting to individuals with low vision	
60 (3.84)	51 (3.02)	4.18. Strategies for teaching signature writing to individuals who are blind	K
66 (3.77)	63 (2.92)	4.19. Strategies for teaching listening and compensatory auditory skills	K
		4.20. Strategies for teaching typing and keyboarding skills	
34 (4.14)	19 (3.32)	4.21. Strategies for teaching technology skills to individuals with visual impairments	K
25 (4.23)	50 (3.03)		K
		4.22. Strategies for teaching use of the abacus, talking calculator, tactile graphics, and adapted science equipment	
24 (4.25)	55 (3.01)		K
		4.23. Strategies for teaching basic concepts to individuals with visual impairments	
11 (4.38)	8 (3.39)		K
		4.24. Strategies for teaching visual efficiency skills and use of print adaptation, optical devices, and non-optical devices	
17 (4.31)	48 (3.03)		K
		4.25. Strategies for teaching organization and study skills to individuals with visual impairments	
12 (4.37)	16 (3.33)		K
		4.26. Strategies to prepare individuals for structured pre-cane orientation and mobility assessment and instruction	
15 (4.31)	30 (3.18)		K
		4.27. Strategies for teaching tactual perceptual skills to individuals with visual impairments	
10 (4.38)	13 (3.34)		K
		4.28. Strategies for teaching human sexuality to individuals with visual impairments	
19 (4.29)	28 (3.18)		K
		4.29. Strategies for teaching adapted physical and recreational skills to individuals with visual impairments	
45 (4.02)	56 (2.99)		K
		4.30. Strategies for teaching social, daily living, and functional life skills to individuals with visual impairments	
4 (4.44)	4 (3.49)		K
		4.31. Strategies for teaching carre-vocational skills and providing vocational counseling for individuals with visual impairments	
7 (4.41)	21 (3.25)		K
		4.32. Strategies for promoting self-advocacy in individuals with visual impairments	
42 (4.07)	24 (3.19)		K
		4.33. Technique for modifying instructional method and materials for individuals with visual impairment	
18 (4.30)	14 (3.34)		K
		4.34. Strategies to prepare students with progressive eye conditions to achieve a positive transition to alternative skills	
27 (4.20)	54 (3.01)		K
		4.35. Teach individuals with visual impairments to use thinking, problem-solving, and other cognitive strategies	
13 (4.33)	12 (3.34)		
		4.36. Prepare adapted or modified materials in Braille, accessible print, and other formats	S
6 (4.42)	7 (3.41)		
		4.37. Transcribe, proofread, and interline materials in contracted literary and Nemeth Braille codes	S
28 (4.20)	18 (3.32)		
		4.38. Use Braillewriter, slate and stylus, and computer technology to produce Braille materials	S
21 (4.29)	10 (3.37)		
		4.39. Prepare individuals with visual impairments to access information and services from the community	S
2 (4.47)	20 (3.28)		
2 (4.26)	2 (3.24)	The ranking and mean out of 10 domains	

Table 3-4 implies that respondents usually consider Braille to be the most important learning tool for students with visual impairments and they are skilled in the instruction of these students with Braille.

Table 3-5: Respondents' ranking and mean regarding *Learning Environments and Social Interactions*

Ranking and Mean		Item	Knowledge (K) or Skill (S)
Importance	Accomplishment		
43 (4.05)	39 (3.12)	5.40. Roles of paraeducators who work directly with individuals with visual impairments	K
47 (4.02)	35 (3.15)	5.41. Role models with visual impairments and their importance	K
32 (4.16)	34 (3.16)	5.42. Enhance instruction for individuals with visual impairments through modification of the environment	S
22 (4.27)	45 (3.05)	5.43. Design multisensory learning environments that encourage active participation by individuals with visual impairments in group and individual activities	S
26 (4.22)	49 (3.03)	5.44. Create learning environments that encourage self-advocacy and independence for individuals with visual impairments	S
3 (4.14)	7 (3.10)	The ranking and mean out of 10 domains	

The rankings of table 3-5 imply that although respondents consider environment and interactions of students with visual impairments to be important, they experience difficulty in providing a supportive environment and encouraging interaction between these students.

Table 3-6: Respondents' ranking and mean regarding *Communication*

Ranking and Mean		Item	Knowledge (K) or Skill (S)
Importance	Accomplishment		
49 (3.99)	46 (3.05)	6.45. Strategies for teaching alternatives to nonverbal communication	K
16 (4.31)	27 (3.19)	6.46. Prepare individuals with visual impairments to respond constructively to societal attitudes and actions	S
3 (4.14)	6 (3.11)	The ranking and mean out of 10 domains	

Table 3-6 implies that respondents experience difficulty in teaching students with visual impairments various communication methods.

Table 3-7: Respondents' ranking and mean regarding *Instructional Planning*

Ranking and Mean		Item	Knowledge (K) or Skill (S)
Importance	Accomplishment		
36 (4.14)	26 (3.19)	7.47. Relationships among assessment, IEP development, and placement as they affect vision-related services	K
30 (4.18)	38 (3.12)	7.48. Model programs for individuals with visual impairments	K
37 (4.13)	53 (3.01)	7.49. Select and use skills to accomplish instructional objectives for individuals with visual impairments	S
39 (4.09)	23 (3.19)	7.50. Sequence, implement, and evaluate learning objectives based on the expanded core curriculum for individuals with visual impairments	S
33 (4.15)	32 (3.17)	7.51. Obtain and organize special materials to implement instructional goals for individuals with visual impairments	S
5 (4.13)	4 (3.16)	The ranking and mean out of 10 domains	

Table 3-7 implies that respondents scored average regarding importance and implementation in curriculum and teaching in comparison with other domains.

Table 3-8: Respondents' ranking and mean regarding *Assessment*

Ranking and Mean		Item	Knowledge (K) or Skill (S)
Importance	Accomplishment		
61 (3.80)	42 (3.07)	8.52. Specialized terminology used in assessing individuals with visual impairments	K
55 (3.91)	65 (2.87)	8.53. Ethical considerations, laws, and policies for assessment of individuals with visual impairments	K
63 (3.79)	64 (2.89)	8.54. Specialized policies on referral and placement procedures for individuals with visual impairments	K
56 (3.89)	57 (2.96)	8.55. Specialized procedures for screening, pre-referral, referral, and identification of individuals with visual impairments	K
54 (3.94)	61 (2.93)	8.56. Alternative assessment techniques for individuals with visual impairments	K
65 (3.78)	59 (2.94)	8.57. Interpretation and application of score from assessments of individuals with visual impairments	S
58 (3.87)	68 (2.76)	8.58. Interpret eye reports and other vision-related diagnostic information	S
52 (3.95)	69 (2.65)	8.59. Use disability-specific assessment instruments	S
53 (3.94)	60 (2.93)	8.60. Adapt and use assessment procedures when evaluating individuals with visual impairments	S
57 (3.88)	53 (3.01)	8.61. Maintain disability-related records for individuals with visual impairments	S
68 (3.74)	58 (2.95)	8.62. Gather background information and family history related to the individual's visual status	S
48 (4.02)	43 (3.06)	8.63. Interpret and use assessment data for instructional planning with individuals with visual impairments	S
9 (3.87)	10 (2.91)	The ranking and mean out of 10 domains	

Table 3-8 implies that respondents usually do not pay much attention to the assessment of students with visual impairment.

Table 3-9: Respondents' ranking and mean regarding *Professional and Ethical Practice*

Ranking and Mean		Item	Knowledge (K) or Skill (S)
Importance	Accomplishment		
64 (3.78)	40 (3.09)	9.64. Organizations and publications relevant to the field of visual impairment	K
59 (3.85)	47 (3.04)	9.65. Participate in the activities of professional organizations in the field of visual impairment	S
10 (3.81)	9 (3.06)	The ranking and mean out of 10 domains	

Table 3-9 implies that many respondents seem to not develop their professionalism related to visual impairment while teaching students with visual impairments.

Table 3-10: Respondents' ranking and mean regarding *Collaboration*

Ranking and Mean		Item	Knowledge (K) or Skill (S)
Importance	Accomplishment		
44 (4.04)	41 (3.08)	10.66. Strategies for assisting families and other team members in planning appropriate transitions for individuals with visual impairments	K
50 (3.98)	36 (3.13)	10.67. Service, networks, publications for and organizations of individuals with visual impairments	K
35 (4.14)	37 (3.13)	10.68. Help families and other team members understand the impact of a visual impairment on learning and experience	S
51 (3.97)	44 (3.06)	10.69. Structure and supervise the activities of paraeducators and tutor who work with individuals with visual impairments	S
7 (4.03)	7 (3.10)	The ranking and mean out of 10 domains	

Table 3-10 implies that although respondents do not ignore the importance of various resources for students with visual impairments, they seem to not pay much attention to these resources.

In summary, as Table 3 shows, *the degree of importance* section tended to have higher evaluation scores than *the degree of accomplishment* section. The mean of all the domains showed that *the degree*

of importance section was scored 4.12 out of 5. On the contrary, *the degree of accomplishment* section was scored 3.14 out of 5. In addition, the mean of *the degree of importance* section was ranged from 3.50 to more in each domain, but the mean of *the degree of accomplishment* section in each domain was ranged from 2.50 to 3.49. These results showed that although teachers acknowledged the significance of items in each domain, their accomplishment level was lower than the level regarding importance.

The five highest rankings in *the important degree* section in 69 standard competence items were as follows:

No 1, Strategies for teaching Braille reading and writing (4.59).
No 2, Prepare individuals with visual impairments to access information and services from the community (4.47).
No 3, Impact of visual impairment on learning and experience (4.45).
No 4, Strategies for teaching social, daily living, and functional life skills to individuals with visual impairments (4.44).
No 5, Attitudes and actions of teachers that affect the behaviors of individuals with visual impairment (4.43).

In addition, the five lowest rankings in *the important degree* in 69 standard competence items were as follows:

No 65, Interpretation and application of score from assessments of individuals with visual impairments (3.78).
No 66, Strategies for teaching listening and compensatory auditory skills (3.77).
No 67, Development of the human visual system (3.76).
No 68, Gather background information and family history related to the individual's visual status (3.74).
No 69, Historical foundation of education of individuals with visual impairments (3.57).

As seen in the above ranking items, special education teachers regarded *Strategies for teaching Braille reading and writing* as the most important factor in teachers' competence and *Historical foundation of education of individuals with visual impairments* as the least important one.

On the other hand, the five highest rankings in *the degree of accomplishment* section, which represented special education teachers' current competence level, were as follows:

No 1, Strategies for teaching Braille reading and writing (3.65).
No 2, Attitudes and actions of teachers that affect the behaviors of individuals with visual impairment (3.57).
No 3, Impact of visual impairment on learning and experience (3.56).
No 4, Strategies for teaching social, daily living, and functional life skills to individuals with visual impairments (3.49).
No 5, Effect of visual impairment on the family and the reciprocal impact on the individual's self-esteem (3.57).

In addition, the five lowest rankings in *the degree of accomplishment* section, which represented special education teachers' current competence level, were as follows:

No 65, Ethical considerations, laws, and policies for assessment of individuals with visual impairments (2.87).
No 66, Federal entitlements that provide specialized equipment and materials for individuals with visual impairments (2.81).
No 67, Effects of medication on the visual system (2.77).
No 68, Interpret eye reports and other vision-related diagnostic information (2.76).
No 69, Use disability-specific assessment instruments (2.65).

The above information about *the degree of accomplishment* section showed that teachers had the highest competence in *Strategies for teaching Braille reading and writing* and the lowest competence in *Use disability-specific assessment instruments.*

High rankings in *the degree of importance* section were also similar to those in *the degree of accomplishment* section. Both *the degree of importance* section and *the degree of accomplishment* section included four competence items of *Strategies for teaching Braille reading and writing*; *Impact of visual impairment on learning and experience; Strategies for teaching social, daily living, and functional life skills to individuals with visual impairments; Attitudes and actions of teachers that affected the behaviors of individuals with visual impairment* as top five competence items. As South Korean special education teachers considered four competence items as important knowledge and skill

factors, their accomplishment levels in these items were also high.

In addition, the evaluation results regarding the 10 domains showed that *Individual Learning Differences* had the highest ranking both in *the degree of importance* section and *the degree of accomplishment* section. The evaluation results also showed that *Assessment* and *Professional and Ethical Practice* had the lowest rankings both in *the degree of importance* section and *the degree of accomplishment* section. As the evaluation results showed that special education teachers had low evaluations in *self-achievement level,* teachers might need to improve their competence through programs such as in-service training. However, the main aim of this study was not to assess special education teachers' accomplishment level, but to determine how teachers evaluated *the degree of importance* section of standard competence. Therefore, the researchers hereafter speculated the findings by focusing on *the degree of importance* section.

The comparison of grade level, educational background and work experience
Comparison of the degree of importance *per grade level*
Table 4 below shows *the degree of importance* section about standard competence required of teachers of students with visual impairments per grade level.

Table 4:
The status of *the degree of importance* of each domain per grade level

Grade Level / Domain	Kindergarten (N=19)		Elementary school (N=58)		Junior High School (N=53)		High School (N=60)	
	M*	SD**	M	SD	M	SD	M	SD
1.0 Foundation	4.271	.434	3.899	.698	3.959	.612	4.075	.664
2.0 Development & Characteristics of Learners	4.315	.526	4.146	.667	4.000	.607	4.147	.599
3.0 Individual Learning Differences	4.596	.478	4.419	.613	4.194	.589	4.416	.693
4.0 Instructional Strategies	4.339	.449	4.313	.533	4.154	.544	4.297	.656
5.0 Learning Environments & Social Interactions	4.368	.513	4.282	.638	3.883	.691	4.170	.703
6.0 Communication	4.315	.671	4.284	.600	3.905	.766	4.175	.837
7.0 Instructional Planning	4.242	.678	4.165	.683	4.015	.631	4.190	.757
8.0 Assessment	4.030	.642	3.916	.753	3.588	.731	4.041	.706
9.0 Professional & Ethical Practice	4.052	.685	3.922	.852	3.481	.919	3.941	.939
10.0 Collaboration	4.157	.703	4.099	.738	3.792	.706	4.145	.703
Total	4.264	.452	4.161	.514	3.949	.525	4.185	.600

* M: Mean ** SD: Standard Deviation

As Table 4 illustrates, teachers had different means of *the degree of importance* section according to their grade level. However, all of the teachers considered 10 domains as important regardless of grade level. The mean ranking of *the degree of importance* section by grade level from highest to lowest was kindergarten, elementary school, high school and junior high school. In addition, all of the teacher groups evaluated *Individual Learning Differences* as the most important domain. On the other hand, the lowest domains in each teacher group were *Assessment* in kindergarten teachers, *Foundation* in elementary school teachers, and *Professional & Ethical Practice* in junior high school and high school teachers.

The researchers also examined the differences among four teacher groups in each domain, and found the following results through one-way ANOVA.

As Table 5 illustrates, *the degree of importance* section among four teacher groups about each domain had a significant variation of 1% in *Communication; Professional & Ethical Practice* and *Collaboration*. It also had a significant variation of 5% in *Learning Environments & Social Interactions* and *Assessment*. There was no significant variation in the other five domains.

Table 5:

The difference of *the degree of importance* of each domain per grade level

Domain	Variable	SS	Df	MS	F
1.0 Foundation	Inter-group	2.403	3	.801	1.943
	Intra-group	76.693	186	.412	
	Total	79.096	189		
2.0 Development & Characteristics of Learners	Inter-group	1.575	3	.525	1.381
	intra-group	70.726	186	.380	
	Total	72.301	189		
3.0 Individual Learning Differences	Inter-group	2.869	3	.956	2.469
	intra-group	72.044	186	.387	
	Total	74.913	189		
4.0 Instructional Strategies	Inter-group	.959	3	.320	.980
	intra-group	60.703	186	.326	
	Total	61.663	189		
5.0 Learning Environments & Social Interactions	Inter-group	5.724	3	1.908	4.330**
	intra-group	81.965	186	.441	
	Total	87.689	189		
6.0 Communication	Inter-group	4.772	3	1.591	2.941*
	intra-group	100.602	186	.541	
	Total	105.374	189		
7.0 Instructional Planning	Inter-group	1.213	3	.404	.840
	intra-group	89.519	186	.481	
	Total	90.732	189		
8.0 Assessment	Inter-group	6.592	3	2.197	4.211**
	intra-group	97.057	186	.522	
	Total	103.649	189		
9.0 Professional & Ethical Practice	Inter-group	8.610	3	2.870	3.660*
	intra-group	145.875	186	.784	
	Total	154.486	189		
10.0 Collaboration	Inter-group	4.380	3	1.460	2.854*
	intra-group	95.147	186	.512	
	Total	99.528	189		

* p<.05, ** p<.01

The comparison of the degree of importance *per educational background*

Table 6 below shows the results of the mean and standard deviation regarding *the degree of importance* section of each domain per educational background.

Table 6:

The status of *the degree of importance* of each domain per educational background

Domain \ Educational Background	Special education major in university (N=104)		Non-major in special education in university (N=36)		Special education major as a graduate school degree (N=50)	
	M	SD	M	SD	M	SD
1.0 Foundation	3.987	.693	3.995	.647	4.063	.548
2.0 Development & Characteristics of Learners	4.105	.638	4.101	.546	4.173	.633
3.0 Individual Learning Differences	4.346	.672	4.333	.552	4.460	.590
4.0 Instructional Strategies	4.280	.592	4.303	.427	4.211	.620
5.0 Learning Environments & Social Interactions	4.115	.716	4.255	.607	4.124	.660
6.0 Communication	4.158	.786	4.152	.705	4.120	.703
7.0 Instructional Planning	4.101	.744	4.288	.509	4.108	.693
8.0 Assessment	3.875	.753	3.884	.705	3.871	.752
9.0 Professional & Ethical Practice	3.812	.953	3.888	.871	3.780	.833
10.0 Collaboration	4.036	.731	4.006	.602	4.050	.803
Total	4.115	.584	4.149	.452	4.108	.541

Table 6 shows that all of the three teacher groups had a high mean in *the degree of importance* section. Although teachers who did not major in special education had a slightly higher mean than the other two teacher groups, teachers regardless of their educational background did not pose a big difference in *the degree of importance* section. In addition, all of the three teacher groups evaluated *Individual Learning*

Differences as the most important domain. However, the three teacher groups had differences in their low evaluations. Teachers who had a special education major as an undergraduate or graduate school degree scored low on *Professional & Ethical Practice*, and teachers who did not major in special education scored low on *Assessment.*

Table 7:

The difference of *the degree of importance* of each domain per educational background

Domain	Variable	SS	Df	MS	F
1.0 Foundation	Inter-group	.204	2	.102	.242
	intra-group	78.893	187	.422	
	Total	79.096	189		
2.0 Development & Characteristics of Learners	Inter-group	.174	2	8.682E-02	.225
	intra-group	72.128	187	.386	
	Total	72.301	189		
3.0 Individual Learning Differences	Inter-group	.510	2	.255	.641
	intra-group	74.403	187	.398	
	Total	74.913	189		
4.0 Instructional Strategies	Inter-group	.219	2	.110	.334
	intra-group	61.443	187	.329	
	Total	61.663	189		
5.0 Learning Environments & Social Interactions	Inter-group	.553	2	.277	.594
	intra-group	87.135	187	.466	
	Total	87.689	189		
6.0 Communication	Inter-group	5.175E-02	2	2.588E-02	.046
	intra-group	105.322	187	.563	
	Total	105.374	189		
7.0 Instructional Planning	inter-group	1.000	2	.500	1.042
	intra-group	89.732	187	.480	
	Total	90.732	189		
8.0 Assessment	inter-group	3.496E-03	2	1.748E-03	.003
	intra-group	103.646	187	.554	
	Total	103.649	189		
9.0 Professional & Ethical Practice	inter-group	.256	2	.128	.155
	intra-group	154.229	187	.825	
	Total	154.486	189		
10.0 Collaboration	inter-group	3.958E-02	2	1.979E-02	.037
	intra-group	99.488	187	.532	
	Total	99.528	189		

The researchers also examined the differences among the three teacher groups in each domain, and found the above results through one-way ANOVA. As Table 7 shows, the three teacher groups did not have a significant variation in each evaluation regarding *the degree of importance* section of each domain.

Table 8:

The status of *the degree of importance* of each domain per work experience

Working Experience / Domain	Less than five years (N=97)		From six to 10 years (N=33)		11 years or more (N=60)	
	M	SD	M	SD	M	SD
1.0 Foundation	3.969	.597	4.060	.688	4.044	.705
2.0 Development & Characteristics of Learners	4.125	.592	4.217	.578	4.066	.681
3.0 Individual Learning Differences	4.436	.505	4.464	.686	4.222	.750
4.0 Instructional Strategies	4.293	.454	4.335	.686	4.185	.665
5.0 Learning Environments & Social Interactions	4.107	.683	4.278	.734	4.130	.648
6.0 Communication	4.134	.723	4.242	.884	4.116	.709
7.0 Instructional Planning	4.098	.660	4.260	.775	4.136	.701
8.0 Assessment	3.829	.738	4.080	.790	3.838	.707
9.0 Professional & Ethical Practice	3.788	.906	4.075	.867	3.725	.908
10.0 Collaboration	4.020	.738	4.280	.695	3.920	.700
Total	4.113	.493	4.239	.637	4.065	.577

Table 9:

The difference of *the degree of importance* of each domain per work experience

	Domain	Variable	SS	Df	MS	F
1.0	Foundation	Inter-group	.318	2	.159	.337
		intra-group	78.779	187	.421	
		Total	79.096	189		
2.0	Development & Characteristics of Learners	Inter-group	.484	2	.242	.630
		intra-group	71.818	187	.384	
		Total	72.301	189		
3.0	Individual Learning Differences	Inter-group	2.031	2	1.016	2.606
		intra-group	72.882	187	.390	
		Total	74.913	189		
4.0	Instructional Strategies	Inter-group	.623	2	.312	.955
		intra-group	61.039	187	.326	
		Total	61.662	189		
5.0	Learning Environments & Social Interactions	Inter-group	.743	2	.371	.799
		intra-group	86.946	187	.465	
		Total	87.689	189		
6.0	Communication	Inter-group	.372	2	.186	.331
		intra-group	105.002	187	.562	
		Total	105.374	189		
7.0	Instructional Planning	inter-group	.644	2	.322	.668
		intra-group	90.088	187	.482	
		Total	90.732	189		
8.0	Assessment	inter-group	1.681	2	.840	1.541
		intra-group	101.968	187	.545	
		Total	103.649	189		
9.0	Professional & Ethical Practice	inter-group	2.795	2	1.397	1.723
		intra-group	151.691	187	.811	
		Total	154.486	189		
10.0	Collaboration	inter-group	2.788	2	1.394	2.694
		intra-group	96.740	187	.517	
		Total	99.528	189		

The comparison of the degree of importance *per work experience*

Table 8 above shows the results of the mean and standard deviation in relation to *the degree of importance* section of each domain per work experience.

As Table 8 shows, there were some differences in the total. However, all of the three teacher groups evaluated each domain higher than the significant level. The mean ranking of *the degree of importance* section by work experience from highest to lowest was six to 10 years of teaching experience, less than five years, and 11 years or more respectively. In addition, all of the teacher groups evaluated *Individual Learning Differences* as the most important domain. On the other hand, the lowest rated domain in each teacher group was the *Foundation* domain in teachers of from six to 10 years, and *Professional & Ethical Practice* in teachers of less than 5 years and 11 years or more.

The researchers also examined the differences among the three teacher groups in each domain, and found the Table 9 results through one-way ANOVA

As Table 9 above shows, three teacher groups did not have a significant variation in each evaluation regarding *the degree of importance* section of each domain.

Conclusion and Implications

The researchers surveyed 190 South Korean special education teachers in 12 schools for students with visual impairments by using the standard competence developed by the CEC in the United States in 2001. The researchers rated the differences of *the degree of importance* section according to grade level, teachers' educational background, and work experience. The researchers concluded the following:

First, in all the 10 domains, South Korean special education teachers rated *the degree of importance* section of standard competence higher than the significant level. However, special education teachers scored low on *the degree of accomplishment* section representing teachers' current competence level in comparison with *the degree of importance* section. In addition, *Strategies for teaching Braille reading and writing* had the highest ranking in *the degree of importance* section and *Historical foundation of*

education of individuals with visual impairments had the lowest ranking. *Strategies for teaching Braille reading and writing* had the highest ranking in *the degree of accomplishment* section and *Use disability-specific assessment instruments* had the lowest ranking.

Second, the comparison between educational background and work experience showed that teacher groups did not have a significant variation in each evaluation about *the degree of importance* section of each domain. However, teacher groups according to grade level had a significant variation of 1% in *Communication*; *Professional & Ethical Practice*, and *Collaboration.* These groups also had a significant variation of 5% in *Learning Environments & Social Interactions* and *Assessment*.

Implications

The findings of this study imply that most South Korean teachers of students with visual impairments may have low competence. Therefore, it will be necessary for South Korean scholars to develop programs designed to improve pre-service and in-service teachers' competence.

The results of this study also revealed that South Korean special education teachers acknowledged the importance of standard competence in 10 domains although their accomplishment levels were not as high as their awareness of standard competence. Special education teachers' awareness of the importance of standard competence implies that additional efforts for bridging a gap between *the degree of importance* section and *the degree of accomplishment* section are necessary. Based on the results, the researchers suggest the following directions.

First, universities need to help special education teachers develop their standard competence through an abundance of teacher education programs. This training will promote special education teachers' quality and professionalism for students with visual impairments. Second, South Korea needs to periodically develop and use the standards of special education teachers' professional competence in universities or related institutions. Third, universities and their related institutions need to provide special education teachers with various programs such as in-service training to improve teachers' competence.

This study only examined South Korean in-service teachers. Since South Korean pre-service programs have not provided pre-service teachers with competence training, South Korean teachers lack self-awareness of competence. Therefore, South Korea needs to give priority to train pre-service teachers through a standard competence program - this study emphasizes the importance of a teacher preparation program through a standard competence program.

Limitations

The researchers only used ANOVA for analyzing the findings of this study. Although the researchers found many variables, the researchers did not use multivariate analysis. The researchers also did not use MANOVA. Although MANOVA might show clearer results between and among variables, this study did not examine these results. The researchers wanted to know how South Korean teachers are competent and the relationship between these teachers' professionalism and their competence. Although the researchers only used ANOVA for the purpose of this study, other methods of analysis such as multivariate analysis may help find results between and among variables. Second, the researchers examined South Korean teachers using the competence standards developed in the United States. However, since South Korea and the United States had different socio-cultural conditions, the use of U.S. studies would have limitations to examine South Korean teachers. Therefore, the researchers need to develop a program tailored to assess South Korean teachers in future studies.

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