

ATTITUDES OF TEACHERS TOWARDS TEACHING AS DETERMINANTS OF CHANGING ATTITUDES TOWARDS THE INTEGRATION OF STUDENTS WITH LEARNING DIFFICULTIES

LELIA KIŠ-GLAVAŠ, ANA WAGNER JAKAB

Received: February 2001

Accepted: September 2001

Original scientific paper

UDK: 376.4

Positive attitudes of teachers towards teaching, are important determinants of their positive attitudes towards the integration of children with learning difficulties into regular elementary schools (Kiš-Glavaš, 2000c). Those attitudes could influence significantly the change of teachers' attitudes towards the integration of children with learning difficulties. This change is encouraged through the implementation of *Program of education of teachers for acceptance of children with special needs*. This hypothesis is verified through Pearson's coefficient of correlation in both an experimental (N=49) and a control group (N=49). The sample were regular elementary school teachers from the Zagreb area who were equalized on the variables: sex, level of education and working place. The correlation of change between the experimental and control groups, in their attitudes towards integration as well as their attitudes towards teaching, was also established. The results confirmed the existence of the correlation in experimental group but they did not confirm it in the control group.

Introduction

Twenty years of experience in integration, in Croatia, has shown that the attitudes of teachers towards students with special needs are not so unfavorable (Igrić, Kiš-Glavaš, 1998; Žic, Igrić, Kiš-Glavaš, 1998; Kiš-Glavaš, 1999; Kiš-Glavaš, 2000a) as indicated in earlier research (Stančić, Mejovšek, 1982; Štević-Vuković, 1986; Levandovski, Radovančić, 1987). Still, there are a lot of subjective, objective and organizational premises that are not fulfilled.

Attitudes of teachers could be influenced through: correct selection of candidates for educational and related studies (Kiš-Glavaš, Igrić, 1998), improvement of their work conditions (Kiš-Glavaš, 1999) as well as additional teacher education (Jordan, Proctor, 1969; Glass, Meckler, 1972; Shotel, Iano, McGettigan, 1972; Harasymiv, Horne, 1976; Larrivee, Cook, 1979; Johnson, Cartwright, 1979; Stephens, Braun 1980; Donaldson, 1980; Stančić, Kovačević, Mejovšek, Novosel,

1981; Wolraich, Siperstein, 1983; Kibler, Rush, Sweeney, 1985; Thompson, 1992; Gemmell-Crosby, Hanzlik, 1994; Gemmell-Crosby, Hanzlik, 1994; Wetsberg, 1996; Utah's Project for Inclusion, 1996; Hudson, Glomb, 1997; Taverner, Hardman, Skidmore, 1997; Igrić, Kiš-Glavaš, 1998b and other).

Furthermore, attitudes of teachers towards the integration of children with special needs in regular schools depend on a lot of other factors such as their attitudes towards teaching (Mejovšek, 1983; Kiš-Glavaš, 2000 b; Kiš-Glavaš 2000c).

Teachers who show more favorable attitudes towards teaching complain less about the negative effects of integration (Kiš-Glavaš, 2000 c). Attitudes towards teaching are defined (Cook, Leeds, Callis, 1951) as the relation between tea-

* Address: Faculty of Special Education and Rehabilitation, University of Zagreb, Kušlanova 59a, 10000 Zagreb, Croatia

cher and student in general, as well as the teacher's satisfaction by his own profession. There is a unique factor in the inventory of attitudes defined by a number of variables that are related to a child's moral position towards the teacher's opinion. The emphasis is sticking to the standards and moral values enforced by adults. Furthermore, they are also related to problems of maintaining discipline in the classroom as well as handling those problems. It also about being aware of the principles of child development and behaviour with respect to a child's abilities, learning, motivation, achievements and personal growth. It is also about educational principles regarding philosophy and curriculum as well as teachers' reactions and satisfaction with the teaching profession.

The Aim

The aim of this research was to find out if a change of attitudes towards the integration of children with learning difficulties had occurred (after implementation of *Program of education of teachers for acceptance the children with special needs*) in both experimental and control group, and whether it was influenced by the attitudes of teachers towards teaching as determined by the initial research. Furthermore, the aim was to establish a possible relation between changing the attitudes towards integration and attitudes towards teaching.

The Sample

The research was conducted on a sample of 98 regular elementary school teachers in the Zagreb area; 49 of them were in the experimental group and 49 were in the control group. Groups were equalized for the variables of sex, level of education and work position (homeroom teachers or subject teachers).

In the experimental group were 27 homeroom teachers and 22 subject teachers (17 teachers are teaching academic subjects and 5 teachers are teaching pedagogical subjects). Their average age was 35.4 years, in a range from 26 to 57 years. Three of them state that they have enough knowledge about children with learning difficul-

ties, 27 think of their knowledge as partial and 19 state that their knowledge is insufficient. Twelve teachers have worked less than 5 years, 14 have worked 5-10 years, 11 have worked 10-15 years, 4 have worked 15-20 years, 5 have worked 20-25 years, and 3 teachers have worked more than 25 years.

In the control group there were 18 homeroom teachers and 31 subject teachers (22 teachers are teaching academic subjects and 9 teachers are teaching pedagogical subjects). Their average age was 39.9 years, and the range was from 24-55 years. Four of them stated that they have enough knowledge about children with learning difficulties, 32 thought their knowledge is partial and 13 stated that their knowledge is insufficient. Nine teachers have worked less than 5 years, 7 have worked 5-10 years, 10 have worked 10-15 years, 6 have worked 15-20 years, 10 have worked 20-25 years and 7 teachers have worked more than 25 years.

Teachers in the experimental group selected on a voluntary basis (teachers were interested in education). At first there were 80 teachers but some of them withdrew from the experiment because of medical or other reasons (irregular attendance on seminars, incomplete questionnaires) and were not considered because it was not possible to equalize them with the control group according to the mentioned variables. The control group was restricted to teachers who had participated in the initial and final phases of the research on all of the variables (measuring instruments).

Measuring instruments and variables

In this research the following measuring instruments were used and at the same time their items were used as variables of the research.

Attitudes Towards Integration Questionnaire (Kiš-Glavaš, 1995) has two parts. In this research the second part that consists of 21 variables was used. This questionnaire measures the attitudes of teachers towards the integration of students with learning difficulties in regular schools. First a factor analysis of the questionnaire was made and then attitudes were estimated through isolated factors.

Factor analysis yielded the following factors:

- Factor of objective prerequisites and advantages of integration for children with learning difficulties (F1)
- Factor of necessity for educational and rehabilitation support and possibilities of preparation of peers for integration (F2)
- Factor of negative effects of integration (F3)
- Factor of relations towards partial integration (F4)
- Factor of recognition of basic characteristics of children with learning difficulties (F5)

Minnesota Teacher Attitude Inventory (Cook, Leeds, Callis, 1951) consists of 150 variables and measures attitudes of teachers towards teaching. Direction of those attitudes is shown through total result of the inventory that can range from - 150 to + 150.

Program of education of teachers and procedures for its implementation

The experimental group consisted of teachers who were involved in the *Program of education of teachers for acceptance of children with special needs during 1996/97 academic year*. During that time the control group was not involved in any kind of additional education.

The general aim of this kind of additional education was to positively change the teacher's attitudes towards students with learning difficulties, to increase the level of their perceived professional competence and to improve social and personal adaptation of students with special needs.

The program was presented in seminars and workshops for a total duration of 80 hours. It was prepared and led by group of experts with considerable experience working with children with special needs. Psychotherapists and socio-therapists were also involved.

Ten topics were covered:

- Communication
- Needs, motivation, behaviour
- Differences
- Creativity in working with children

- Emotions and self-image
- Crisis and stress
- Conflict management
- Didactical and methodical aspects of working with students with learning difficulties
- Parenthood and cooperation
- Working in and with a group

Each topic consists of an introductory lecture and 3 workshops (teacher's personal experience, practice with new methods and techniques, and the potential for applying new skills). The teachers were expected to apply the newly acquired skills in the classroom and experiences were compared at the next meeting.

Data processing methods

The Pearson coefficient was used for establishing the correlation between variables.

Results and discussion

The correlation of change on factors ATI and initial results of experimental and control groups on MTAI.

Table 1 shows the correlation of initial results of experimental group on the Minnesota Attitude Inventory (MTAI) that measures attitudes of teachers towards teaching and the difference between final and initial results of same group of teachers on factors of the Attitudes Towards

Table 1. Correlation of initial results of experimental group on MTAI and difference of results of the ATI factors

variables	diff. F I	diff. F II	diff. F III	diff. F IV	diff.F V
init. MTAI	- 0.00	0.20	0.42*	-0.04	0.17

Integration Questionnaire (ATI) that measures attitudes of teachers towards integration of students with learning difficulties.

As it is evident from Table 1 there is statistically significant positive correlation between

favourable teachers' attitudes towards teaching in initial phase of research (high score on MTAI) in experimental group and changes on factor III ATI (factor of negative effects of integration). It seems that, due to *Program of education of teachers for acceptance of children with special needs*, teachers who reported the most favourable attitudes towards teaching in initial phase of research, made the best improvement in their attitudes on the factor of negative effects of integration. The related variables that are most statistically significant are: variable number 3 (students with learning difficulties disturb ordinary work in a classroom of regular elementary school), variable number 4 (students with learning difficulties can have a bad influence on the results of the whole class), variable number 2 (all students with learning difficulties should attend schools under special conditions) and variable number 11 (students with learning difficulties would experience uncomfortable situations from their peers without difficulties).

Table 2 shows correlation between initial results of the control group on the Minnesota Teacher Attitude Inventory and differences between initial and final results of the same group

Table 2 *The correlation of initial results of the control group on the MTAI and differences between results on the ATI factors*

variables	diff. F I	diff. F II	diff. F III	diff. F IV	diff.F V
init. MTAI	0.08	-0.05	0.16	0.04	0.22

on factors of the Attitudes Towards Integration Questionnaire.

It is evident from table 2 that there is no significant correlation between initial results on the MTAI and differences between the initial and final results on the ATI in the control group. There is some but not a high correlation on factor V (Factor of recognition of basic characteristics of children with learning difficulties). So it seems that teachers from the control group who initially had positive attitudes towards teaching, improved their basic knowledge about students with learning difficulties.

Table 1 shows that the higher total initial score of experimental group on the MTAI was, the more positive the changes on factor III were. That was not the case with control group (Table 2).

Teachers in experimental group with initially high scores on MTAI improved their attitudes because of their involvement in the *Program of education*. On the other hand there is no such effect in the control group, even with teachers who initially had positive attitudes toward teaching. That is because the control group was not involved in the experimental work.

The correlation of changes of the experimental group and the control group on the ATI factors and the changes on the MTAI

Table 3 shows the correlation of the final and the initial results of the experimental group on the Minnesota Teacher Attitude Inventory and the differences between the final and the initial results of the experimental group through factors of the Attitudes Towards Integration Questionnaire.

Table 3 *The correlation of differences between the experimental group on the MTAI and differences on the ATI factors*

variables	diff. F I	diff. F II	diff. F III	diff. F IV	diff.F V
diff. MTAI	- 0.07	0.03	0.06	-0.30*	-0.13

As it is evident in table 3, there is a statistically significant negative correlation in the experimental group between the differences in the results of the MTAI and the differences in the results on the ATI factor IV (factor of relations towards partial integration). This factor is saturated almost completely with two variables: variable number 21 (most of the students with learning difficulties can successfully pass adapted curriculum in special classes) and variable number 20 (most of the students with learning difficulties can successfully pass one part of educational program in regular class and other part in special class). Results in table 3 show that the more po-

sitive changes in teachers attitudes toward teaching were, the more negative their estimation of partial integration was.

Table 4 shows the correlation between the final and the initial results of the control group on the MTAI and the differences between the final and the initial results of the control group on the ATI factors

Table 4 The correlation of differences in the control group on the MTAI and the differences on the ATI factors

variables	diff. F I	diff. F II	diff. F III	diff. F IV	diff.F V
diff.. MTAI	0.11	0.18	0.08	-0.11	0.20

As table 4 shows there is no statistically significant correlation between the differences in the results of the control group on the MTAI and the differences in the results on the ATI factors. There are some positive correlations that are obvious in the differences between the results on the factor V (factor of recognition of basic characteristics of children with learning difficulties). In the control group some teachers improved their attitudes towards teaching. The greater their improvement was, the better their basic knowledge about children with learning difficulties became.

The significance of the differences between the coefficients of correlation in the experimental group and the control group on each ATI factor was also established, as well as the statistically significant difference on factor IV, $p < 0.0493$. So it can be concluded that change in both groups are significantly different and opposite on the ATI factor IV of change in comparison to their change of the total result on the MTAI. Teachers in the experimental group, who changed more positively their attitudes towards teaching, changed in a negative way their attitudes towards partial integration. On the other hand the control group of teachers who changed their attitudes towards teaching in a more positive manner also changed attitudes towards partial integration in a more positive way.

Even though those results might look illogical, the positive finding is that teachers in the experimental group who, due to the *Program of edu-*

cation, improved their attitudes toward teaching, showed positive attitudes towards full integration through their negative attitudes towards partial integration. In the control group, on the other hand, this effect was opposite.

Conclusion

Based on results of this research it can be concluded:

- Attitudes of teachers towards teaching are significant determinants in changing their attitudes towards the integration of children with learning difficulties into regular schools
- In the experimental group, teachers with initially very favourable attitudes towards teaching improved their attitudes towards integration of children with learning difficulties because of their involvement in the *Program of education*. In the control group on the other hand, because of the absence of experimental work, this effect has not occurred, even with teachers who initially had a very high score on the MTAI. This finding proves that the factors of changing attitudes are very complex and that it is almost impossible to discuss isolated effects of any factor of change.
- Teachers in the experimental group, who have more positive attitudes towards teaching, adopted more negative attitudes towards partial integration. In the control group the situation was opposite. Positive changes occurred in favour of the experimental group and changes are statistically significant different and opposite on the ATI factor IV of change in comparison to the total score on the MTAI, for both groups of teachers. The directed influence of education on one group, and complete absence of same effect on the other group, resulted in the positive attitudes of teachers towards full integration in the experimental group but also with more positive attitudes towards partial integration in the control group. This finding proves the complexity of influences on attitudes and how they change as well as the complexity of attitude structures. This complexity determines the prevention of negative attitudes as well as the planning and developing of positive changes not only in attitudes in general, but also in attitudes towards the integration of children with special needs.

REFERENCES

- Cook, W. W., Leeds, C. H., Callis, R., 1951.: Minnesota Teacher Attitude Inventory, The Psychological Corporation
- Donaldson, J., 1980.: Changing attitudes toward handicapped persons: A review and analysis of research, *Exceptional Children*, 7, 46, 504-514
- Gemmell-Crosby, S., Hanzlik, J. R., 1994.: Preschool Teachers' Perceptions of Including Children with Disabilities, *Education and Training in Mental Retardation and Developmental Disabilities*, 29, 4, 279-287
- Glass, R. M., Meckler, R. S., 1972.: Preparing elementary teachers to instruct mildly handicapped children in regular classrooms: A summer workshop, *Exceptional Children*, 39, 152-156
- Harasymiw, S.J., Horne, M.D., 1976.: Teacher attitudes toward handicapped children and regular class integration, *Journal of Special Education*, 4, 10, 393-400
- Hudson, P., Glomb, N., 1997.: If it Takes Two to Tango, Then Why Not Teach Both Partners to Dance? Collaboration Instruction for All Educators, *Journal of Learning Disabilities*, 30, 4, 442-448
- Igrić, Lj., Kiš-Glavaš, L., 1998a.: The Effect of 1-Year Teacher Training on their Attitudes toward Integration of Children with Learning Difficulties, Beit Issie Shapiro's 2nd International Conference, June 29 - July 2 1998, Jerusalem, Israel
- Igrić, Lj., Kiš-Glavaš, L., 1998b.: Education of Teachers for the Acceptance of Pupils with Special Needs, Proceedings, NADD 15th Annual Conference, Excellence from the Heart, November, 4th-7th, Albuquerque, New Mexico, SAD
- Johnson, A.B., Cartwright, C.A., 1979.: The roles of information and experience in improving teacher's knowledge and attitudes about mainstreaming, *Journal of Special Education*, 4, 13, 453-462
- Jordan, J.E., Proctor, D.J., 1969.: Relationship between knowledge of exceptional children, kind on amount of experience with them, and the teacher attitudes toward their classroom integration, *Journal of Special Education*, vol. 3, br. 4, str. 433-439
- Kibler, V.E., Rush, B.L., Sweeney, T.J., 1985.: The relationship between Adlerian course participation and stability of attitude change, *Individual Psychology Journal of Adlerian Theory, Research and Practice*, 41, 3, 354-362
- Kiš-Glavaš, L., 2000a.: Utjecaj programa edukacije učitelja za prihvaćanje djece s posebnim potrebama na promjenu stavova učitelja prema poučavanju, Zbornik radova 3. međunarodnog seminara Društvena i odgojno-obrazovna skrb za osobe s posebnim potrebama danas i sutra, Trakošćan, 15. - 17. 5. 2000, str. 13 - 17
- Kiš-Glavaš, L., 2000b.: Stavovi prema edukacijskoj integraciji djece s posebnim potrebama, *Dijete i društvo*, 2, 1, 23-35 (pregledni rad)
- Kiš-Glavaš, L., 2000c.: Neke osobine ličnosti učitelja i stavovi prema poučavanju kao determinante njihovih stavova prema integraciji djece usporenog kognitivnog razvoja u redovne osnovne škole u Hrvatskoj, Portorož
- Kiš-Glavaš, L., 1999.: Promjena stavova učitelja prema integraciji djece usporenog kognitivnog razvoja, Disertacija, Edukacijsko-rehabilitacijski fakultet, Sveučilište u Zagrebu
- Kiš-Glavaš, L., Igrić, Lj., 1998.: Stavovi prema učenicima usporenog kognitivnog razvoja i kako ih mijenjati, Zbornik radova međunarodnog znanstvenog kolokvija, Kvaliteta u odgoju i obrazovanju, 19. - 20. veljače, Rijeka, str. 374-384
- Larriee, B., Cook, L., 1979.: Mainstreaming: A study of the variables affecting teacher attitude, *Journal of Special Education*, 3, 13, 315-324
- Levandovski, D., Radovančić, B., 1987.: Komparacija stavova nastavnika redovnih i specijalnih škola prema djeci s teškoćama u razvoju u integracijskim uvjetima (prema pojedinim vrstama oštećenja), Fakultet za defektologiju, Sveučilište u Zagrebu
- Mejovšek, M., 1983.: Povezanost stavova nastavnika redovnih osnovnih škola prema integraciji djece sa smetnjama u razvoju u redovne škole s odgojno-obrazovnom djelatnosti škole i socijalnim statusom, Fakultet za defektologiju, Sveučilište u Zagrebu, Zagreb
- Shotel, J.R., Iano, R.P., McGettigan, J.F., 1972.: Teacher attitudes associated with the integration of handicapped children, *Exceptional Children*, 9, 38, 677-684
- Stancić, V., Mejovšek, M., 1982.: Stavovi nastavnika redovnih osnovnih škola prema odgojno-obrazovnoj integraciji djece sa smetnjama u razvoju, Fakultet za defektologiju, Zagreb
- Stancić, V., Kovačević, V., Mejovšek, M., Novosel, M., 1981.: Promjena stavova prema osobama sa somatopsihičkim oštećenjima u funkciji informacija, *Defektologija*, 17, 1-2, 1-34
- Stephens, Th.M., Braun, B.L., 1980.: Measures of regular classroom teacher attitudes toward handicapped children, *Exceptional Children*, 4, 48, 292-294
- Štević-Vuković, V., 1986.: Objektivni i subjektivni uvjeti uključivanja djece sa smetnjama u razvoju u redovnu škole, magistarski rad, Fakultet za defektologiju, Zagreb
- Taverner, S., Hardman, F., Skidmore, D., 1997.: English and mathematics teachers' attitudes to integration, *British Journal of Special Education*, 24, 1, 39-43
- Thompson, J. T., 1992.: Developing and Implementing an Inservice Program Designed To Change Teacher Attitudes toward Mainstreamed Learning Disabled Students at the Secondary Level, ERIC, NO-ED351811
- Utah's Project for Inclusion, 1996, Including Families in the Educational Team and in the Classroom (Circle of Inclusion Model: Preparing Personnel), Inclusion Projects Home Page, <http://WWW.itrc.ucf.edu/WORKSHOPS/>
- Wetsberg, S., I., 1996.: Meeting the Needs of Disabled Students in the Mainstream, *NASSP-Bulletin*, 80, 576, 87-95
- Wolraich, M.L., Siperstein, G.N., 1983.: Assessing professionals prognostic impressions of mental retardation, *Mental Retardation*, 21, 1, 8-12
- Žic, A., Igrić, Lj., Kiš-Glavaš, L., 1998: School integration of children with intellectual disability in Croatia, *Development Across the Life-Cycle: International Course of Intellectual Disability*, December, 14-17, Maastricht, The Netherlands