Inclusive School Teachers’ Self-assessment of Their Diagnostic and Therapeutic Knowledge and Skills

Summary: Diagnostic and therapeutic competencies are the foundation of educational activities undertaken by a professional teacher, one who has knowledge and skills verified by practice, and who is flexible enough to approach a student in a personalized way, thus providing them opportunities for development that take into account their cognitive abilities and needs. This article presents research on teachers’ declared sources of knowledge and skills in the fields of diagnosis and therapy, and their self-assessment of their knowledge and skills. It is part of a larger research project devoted to the diagnostic and therapeutic competencies of teachers in mainstream, inclusive and special education schools.
**Streszczenie:** Kompetencje diagnostyczne i terapeutyczne stanowią fundament działań edukacyjnych podejmowanych przez profesjonalnego nauczyciela. Tylko nauczyciel dysponujący wiedzą i umiejętnościami zweryfikowanymi w praktyce oraz elastycznie i personalizowanie podchodzący do dziecka może bowiem zapewnić mu rozwój uwzględniający jego możliwości i potrzeby poznawcze. Artykuł prezentuje badania dotyczące deklaratywnych źródeł nauczycielskiej wiedzy i umiejętności w zakresie diagnozy i terapii oraz ich samoocenę. Przedstawione badania są fragmentem większego projektu badawczego poświęconego kompetencjom diagnostycznym i terapeutycznym nauczycieli szkół ogólnodostępnych, integracyjnych i specjalnych.

**Słowa kluczowe:** kluczowe kompetencje nauczycieli, kompetencje diagnostyczne, kompetencje terapeutyczne, samoocena wiedzy, samoocena umiejętności

**Introduction**

A teacher’s professional role encompasses three basic responsibilities fulfilled by them in the educational space: didactic – regarding the transfer of knowledge and the development and improvement of skills; educational – shaping students’ social skills, their value and identity systems; and protective – consisting in caring for a child’s biological and psychological needs and ensuring his or her sense of security (Appelt & Kleczewska, 2001, pp. 12–14). However, in order for the implementation of these responsibilities to guarantee the highest quality of teachers’ work, they must be equipped with competencies that support a “new professionalism” (Gołębniak, 2001, p. 129) based on knowledge and skills (constituting part of their competence) and verified in practice.

Competencies constitute one’s ability to carry out tasks that are part of social standards and taking responsibility for one’s behavior (Szempruch, 2000, p. 264). These features are supported by knowledge and experience, as well as behavior and attitude (Jędrzejczyk, 2014, p. 14), which are of particular importance for the effectiveness of activities undertaken by a professional teacher.

We can distinguish three groups of teachers’ professional competencies: basic (communication), necessary (without which the teacher cannot perform educational tasks), and desirable competencies (helpful in carrying out educational tasks, but not necessary) (Dylak, 1993, pp. 38–39). Diagnostic and therapeutic competencies fall into the second group. Teachers’ professional competencies largely include specialist, psychodidactic (motivating, activating,
individualizing), communication, counseling, advisory and reflective ones (Kyriacou, 1991, p. 24). It is worth emphasizing that specialist competencies, including diagnostic and therapeutic ones, are an indispensable element of working with a child with special educational needs and constitute a super-structure of general humanistic and pedagogical competencies (Gajdzica, 2011; 2013). As Skibska (2018, p. 112) points out, “The importance of diagnostic competence results from one’s responsibility for a child’s/student’s development and for making decisions related to directions of development and behavior modification.” On the other hand, the significance of therapeutic competencies stems from the detection of various relationships and regularities, skillful listening, understanding and paying attention to the unspoken (King, 2003). In this sense, therapeutic competence is sometimes equated with pedagogical tact (Braslawska-Haque, 2013) which

[…] does not involve only looking at a child’s biography, opening up to their experiences and individuality, but also exerting delicate influence, which arises from situational confidence and an impromptu image. [It] protects the child’s space, safeguards what is at risk, prevents pain, merges what is divided, strengthens the good, enhances the unique and supports the child’s personal development and ability to learn. (Śliwerski, 2010, pp. 25–26)

Therefore, an appropriate level of expert education and training should be mentioned among the basic conditions for teachers’ high-quality work (Burkovičová, 2016). Thanks to acquired competencies, a teacher can effectively face the challenges of the modern school (Janiszewska-Nieścioruk, 2008) and is able to work with every child in a flexible way, allowing him or her to “build proper relationships with both younger and older students” (Jabłoński & Wojciechowska, 2013, p. 59). Only high-quality competencies, skills and knowledge build individual and social capital (Chrzanowska, 2010). They allow for the pro-quality and professional fulfillment of the teacher’s functions in all areas of the educational space, for creating the right atmosphere not only for thinking but also for feeling, for activating human values and kindness and, finally, for kindling children’s aspirations, giving them the strength, will and motivation to act (Grzegorzewska, 2002).

The above considerations show the importance of specialist knowledge, as well as the value of diagnostic and therapeutic skills, for teachers working with children with different educational needs. This is why the goal of the article – and the research presented in it – is to identify the sources of teachers’
knowledge and skills which determine the quality of their and their students’ work and thus require specialist and professional support.

**Methodological assumptions of own research**

The research was conducted in 2018 in the Śląskie Voivodeship in six randomly selected inclusive schools. The study enlisted the participation of 105 teachers working with children with special educational needs. Most of the respondents (62.9%) were aged 40 and over; 37.1% of respondents were aged 20–39. Over half of the surveyed teachers (59.0%) did not have additional qualifications, while 41.0% of the respondents acquired additional qualifications in the course of their professional careers.

The study used the diagnostic survey method. The survey consisted of four open questions and thirteen closed (categorized) ones, in which the surveyed teachers were asked to specify the degree of importance or difficulty by choosing one of the following numbers: 1 – the most important, 2 – important, 3 – least important; or 1 – the most difficult, 2 – difficult, 3 – least difficult.

The aim of the research was to learn the sources of specialist knowledge and skills related to diagnosis and therapy as declared by the teachers of inclusive schools and their self-assessment of the same. Furthermore, it explored the relation between the teachers’ self-assessment and their age and additional qualifications.

The following research questions were formulated:

1. What are the sources of diagnostic and therapeutic knowledge and skills declared by the surveyed teachers of inclusive schools?
2. How do the surveyed teachers of inclusive schools assess their diagnostic and therapeutic knowledge and skills?
3. Does the age of the teachers of inclusive schools surveyed determine the assessment of their diagnostic and therapeutic knowledge and skills? To what extent?
4. Do the additional qualifications held by the teachers of inclusive schools condition the assessment of their diagnostic and therapeutic knowledge and skills? To what extent?

The variables regarding self-assessment of knowledge and skills were analyzed based on the assumed scale from 1 to 5. Non-parametric Mann-Whitney U tests and Kruskal-Wallis tests were used in this part of the analysis. The significance level $p = 0.05$ was assumed in all analyses. The study is part of
a larger research project devoted to the diagnostic and therapeutic competencies of teachers in public, inclusive and special education schools.

The starting point for the adopted division of knowledge and skills is the one proposed by Z. Gajdzica (2013, pp. 103–114; 2011: scientific knowledge – conferences, book publications, journals; informal knowledge – media, internet, peer assistance; departmental institutional knowledge – materials/conferences organized by the Ministry of National Education (MEN); non-departmental institutional knowledge – e.g., workshops and trainings organized by Voivodship Teachers Training Centers (WOMs), post-graduate studies. For the purposes of this research, this division was expanded to include expert knowledge – acquired during studies and knowledge acquired at work (trainings/workshops organized by the school management). In addition, it was supplemented with various types of skills that are equivalent to the division of knowledge, i.e., “scientific” skills – participation in workshops conducted during academic conferences, practical tips taken from academic journals; informal skills – media, Internet, peer assistance; departmental institutional skills – trainings/workshops organized by the Ministry of National Education; non-departmental institutional skills – trainings/workshops organized by WOMs, post-graduate studies; expert skills – acquired at university; skills acquired at work – trainings/workshops organized by the school management.

**Own research results**

Based on the collected data on the sources of diagnostic and therapeutic knowledge and skills as declared by the surveyed teachers of inclusive schools (figures 1 and 2), it can be concluded that the most frequently mentioned sources of diagnostic knowledge are knowledge acquired at work (76.2%), scientific knowledge (56.2%) and expert knowledge (45.7%). Informal and non-departmental institutional knowledge were indicated by 41.9% and 39% of the respondents, respectively, while other teachers (13.3%) pointed out departmental institutional knowledge. The most frequently indicated sources of therapeutic knowledge were knowledge acquired at work (79%), non-departmental institutional knowledge (54.3%) and scientific knowledge (50.5%). Expert knowledge and informal knowledge were indicated by 44.8% and 36.2% of the respondents, respectively, while 17.1% selected departmental institutional knowledge.
Regarding sources of diagnostic skills, the most frequently declared were those acquired at work (78.1%), non-departmental institutional skills (50.5%) and scientific skills (47.6%). Expert and informal skills were indicated by 45.7% and 39% of the respondents, respectively, while 14.3% indicated departmental institutional skills. The most frequently indicated sources of therapeutic skills were those acquired at work (78.1%), non-departmental institutional skills (51.4%) and scientific skills (42.9%). Expert and informal skills were indicated by 41% of the respondents, while 11.4% of the respondents indicated departmental institutional skills.
Another issue concerned the assessment by teachers in inclusive schools of their expertise on and skills in diagnosis and therapy (figures 3 and 4).

![Figure 3.](image1.png)

**Figure 3.**

Diagnostic knowledge was most often assessed by the surveyed teachers as average (55.2%) or good (27.6%), while 2.9% of respondents in this group claimed that it was very good and 14.3% believed that it was low or very low (in this, 13.3% and 1.0% of respondents, respectively). Regarding their therapeutic knowledge, 47.6% of respondents assessed it as average and 33.3% as good, while 5.7% of the teachers surveyed asserted that their knowledge was very good, and a low or very low level of therapeutic expertise was indicated by 11.4% and 1.9% of the teachers surveyed, respectively.

![Figure 4.](image2.png)

**Figure 4.**
Nearly six in ten of the respondents (58.1%) assessed their diagnostic skills as average, and 19.0% and 3.8% of the study participants, respectively, believed their diagnostic skills to be good or very good. At the other end of the spectrum, 15.2% of the teachers in this group rated their diagnostic skills as low, and 3.8% as very low. Regarding therapeutic skills, 47.6% of the respondents declared they were average, while 32.4% assessed them as good, and 4.8% as very good. According to 12.4% and 2.9% of respondents, respectively, their therapeutic skills are at a low or very low level.

A further analysis of the data was carried out in order to determine the relationship between the age of the teachers surveyed and their expertise on, and skills in, diagnosis and therapy (Table 1).

Table 1
The age of the teachers surveyed and their declared knowledge and skills in terms of diagnosis and therapy

<table>
<thead>
<tr>
<th>Self-assessment of knowledge and skills</th>
<th>Age</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Q25</th>
<th>Me</th>
<th>Q75</th>
<th>Max</th>
<th>U</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostic knowledge</td>
<td>20–39 y.o.</td>
<td>3.1</td>
<td>0.9</td>
<td>1.0</td>
<td>3.0</td>
<td>3.0</td>
<td>4.0</td>
<td>5.0</td>
<td>1091.00</td>
<td>0.148</td>
</tr>
<tr>
<td></td>
<td>40 and over</td>
<td>3.3</td>
<td>0.6</td>
<td>2.0</td>
<td>3.0</td>
<td>3.0</td>
<td>4.0</td>
<td>5.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Therapeutic knowledge</td>
<td>20–39 y.o.</td>
<td>3.1</td>
<td>1.0</td>
<td>1.0</td>
<td>2.0</td>
<td>3.0</td>
<td>4.0</td>
<td>5.0</td>
<td>965.50</td>
<td>0.021</td>
</tr>
<tr>
<td></td>
<td>40 and over</td>
<td>3.4</td>
<td>0.7</td>
<td>2.0</td>
<td>3.0</td>
<td>3.0</td>
<td>4.0</td>
<td>5.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnostic skills</td>
<td>20–39 y.o.</td>
<td>2.9</td>
<td>1.0</td>
<td>1.0</td>
<td>2.0</td>
<td>3.0</td>
<td>3.0</td>
<td>5.0</td>
<td>1156.00</td>
<td>0.329</td>
</tr>
<tr>
<td></td>
<td>40 and over</td>
<td>3.1</td>
<td>0.7</td>
<td>1.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>5.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Therapeutic skills</td>
<td>20–39 y.o.</td>
<td>3.0</td>
<td>1.0</td>
<td>1.0</td>
<td>2.0</td>
<td>3.0</td>
<td>4.0</td>
<td>5.0</td>
<td>1000.50</td>
<td>0.040</td>
</tr>
<tr>
<td></td>
<td>40 and over</td>
<td>3.4</td>
<td>0.7</td>
<td>2.0</td>
<td>3.0</td>
<td>3.0</td>
<td>4.0</td>
<td>5.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

M – average; SD – standard deviation; Min – minimum value; Max – maximum value; Q25 – bottom quartile; Me – median; Q75 – upper quartile; U – Mann-Whitney U test statistics; p – significance.
Source: own research.

There are no statistically significant differences in the levels of self-assessed diagnostic knowledge between teachers aged 20–39 and those aged 40 and over (U = 1091.00, p > 0.05). The same quartile and median values were noted in both groups (Q25 = 3, Me = 3, Q75 = 4). There are, however, statistically significant differences between the teachers aged 20–39 and those aged 40 and over regarding the self-assessed levels of their therapeutic...
knowledge (U = 965.50, p < 0.05). Among the subjects from the first group, the results ranged from Min = 1 to Max = 5. The median in this group was Me = 3, which means that at least half of the subjects achieved a result not higher than this level. Among the respondents from the second group, the results were higher – they were encompassed by the values Min = 2 and Max = 5; a quarter of the respondents did not exceed the level of Q25 = 3, for half of the respondents the results were not higher than Me = 3, and for three-quarters of them not higher than Q75 = 4. This means that the teachers aged 40 years or older rated their therapeutic knowledge higher than the younger teachers did.

There are no statistically significant differences in the levels of self-assessed diagnostic skills between teachers aged 20–39 and those aged 40 and over (U = 1.156.00, p > 0.05). The same values of upper quartiles and median were recorded in both groups (Me = 3, Q75 = 3). There are, however, statistically significant differences in the levels of self-assessed therapeutic skills between teachers aged 20–39 and those aged 40 and over (U = 1050.50, p < 0.05). Among the subjects from the first group, the results ranged from Min = 1 to Max = 5. The median in this group was Me = 3, which means that at least half of the subjects achieved a result not higher than this level. Among the respondents from the second group, the results were higher – encompassed by the values Min = 2 and Max = 5; a quarter of the respondents did not exceed the level of Q25 = 3, for half of them the results were not higher than Me = 3, and for three quarters not higher than Q75 = 4. This means that the teachers aged 40 and older rated the level of their therapeutic skills higher than the younger teachers did.

Further analysis was conducted to ascertain whether the possession of additional qualifications by the teachers surveyed determined their knowledge and skills regarding diagnosis and therapy (Table 2).
Table 2
Additional qualifications of the teachers surveyed and their declared knowledge and skills in the field of diagnosis and therapy

<table>
<thead>
<tr>
<th>Self-assessment of knowledge and skills</th>
<th>Additional qualifications</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Q25</th>
<th>Me</th>
<th>Q75</th>
<th>Max</th>
<th>U</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostic knowledge</td>
<td>NO</td>
<td>3.1</td>
<td>0.6</td>
<td>2.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>4.0</td>
<td>1055.00</td>
<td>0.044</td>
</tr>
<tr>
<td></td>
<td>YES</td>
<td>3.3</td>
<td>0.8</td>
<td>1.0</td>
<td>3.0</td>
<td>3.0</td>
<td>4.0</td>
<td>5.0</td>
<td>848.50</td>
<td>0.001</td>
</tr>
<tr>
<td>Therapeutic knowledge</td>
<td>NO</td>
<td>3.1</td>
<td>0.7</td>
<td>1.0</td>
<td>3.0</td>
<td>3.0</td>
<td>4.0</td>
<td>5.0</td>
<td>1050.50</td>
<td>0.039</td>
</tr>
<tr>
<td></td>
<td>YES</td>
<td>3.6</td>
<td>0.8</td>
<td>1.0</td>
<td>3.0</td>
<td>4.0</td>
<td>4.0</td>
<td>5.0</td>
<td>852.00</td>
<td>0.001</td>
</tr>
</tbody>
</table>

M – average; SD – standard deviation; Min – minimum value; Max – maximum value; Q25 – bottom quartile; Me – median; Q75 – upper quartile; U – Mann-Whitney U test statistics; p – significance.
Source: own research.

There are statistically significant differences between the teachers with additional qualifications and those who do not have them (U = 1055.00, p < 0.05) regarding their diagnostic knowledge. Among the subjects from the first group, the results ranged from Min = 2 to Max = 4. The median in this group was Me = 3. Among the subjects from the second group, the results were higher – a quarter of the respondents did not exceed the level of Q25 = 3, for half of them the results were not higher than Me = 3, and for three-quarters not higher than Q75 = 4. It follows that teachers with additional qualifications rated their diagnostic knowledge higher than the other respondents.

Likewise, there are statistically significant differences between the teachers with additional qualifications and those who do not have them (U = 845.50, p < 0.05) regarding their therapeutic knowledge. Among the subjects from the first group, the results ranged from Min = 1 to Max = 5. The median in this group was Me = 3. Among the subjects from the second group, the results were higher – a quarter of the respondents did not exceed the level of Q25 = 3, for half of them the results were not higher than Me = 4, and for three-quarters not higher than Q75 = 4. This means that teachers with
additional qualifications rated their therapeutic knowledge higher than the other respondents did.

There is also a statistically significant difference in diagnostic skills between teachers with additional qualifications and those who do not have them ($U = 1050.50, p < 0.05$). Among the subjects from the first group, the results ranged from Min = 1 to Max = 5. The median in this group was $Me = 3$. Among the subjects from the second group, the results were higher – a quarter of the respondents did not exceed the level of $Q25 = 3$, for half the results were not higher than $Me = 3$, and for three-quarters not higher than $Q75 = 4$. It can be concluded that teachers with additional qualifications rated their diagnostic knowledge higher than the other respondents did.

Likewise, there are statistically significant differences in therapeutic skills between teachers with additional qualifications and those who do not have them ($U = 852.00, p < 0.05$). Among the subjects from the first group, the results ranged from Min = 1 to Max = 5. The median in this group was $Me = 3$. Among the subjects from the second group, the results were higher – a quarter of the respondents did not exceed the level of $Q25 = 3$, for half of them the results were not higher than $Me = 4$, and for three-quarters not higher than $Q75 = 4$. This means that teachers with additional qualifications rated their therapeutic skills higher than the other respondents did.

**Conclusion**

Diagnostic and therapeutic knowledge and skills fit into the range of key competencies that a professional teacher should be equipped with. To a large extent, this is due to changes taking place in contemporary social space, which “[…] define new areas in education and require new competencies. They go beyond the canon of basic knowledge, skills and attitudes which constitute a teacher’s professional preparation” (Pankowska, 2016). These certainly include both diagnostic and therapeutic knowledge and skills, which fall within the range of the competencies of a present-day teacher who must be professionally prepared to work with a child with diverse educational needs and cognitive capabilities. The research presented above, referring to teachers’ declared sources of knowledge and skills in the areas of diagnosis and therapy, allows me to formulate the following conclusions which, however, due to the size of the sample, are not subject to generalization:
1. The surveyed teachers of inclusive schools declare that their knowledge and skills related to diagnosis and therapy consist in competencies which have mostly been acquired in the course of their professional work (over 70%) and in the scientific knowledge and skills acquired at conferences and by reading professional literature (books and academic journals) (over 50%).

2. The surveyed teachers of inclusive schools assess both their diagnostic knowledge and their diagnostic skills as average (over 80% and over 50%, respectively). Therapeutic knowledge is also assessed by the surveyed teachers as average (over 80%), similarly to their skills in this field (over 70%).

3. The age of the surveyed teachers of inclusive school determines the self-assessment of their knowledge and skills in the fields of diagnosis and therapy. There are statistically significant differences between teachers aged 20–39 and teachers aged 40 and over. The teachers who are 40 years old or older assess their knowledge and skills in the field of diagnosis and therapy higher than the younger teachers assess theirs.

4. Having additional qualifications influenced the examined teachers’ self-assessment of their knowledge and skills in the fields of diagnosis and therapy. There are statistically significant differences between the teachers with additional qualifications and those who do not have them. Teachers with additional qualifications assess their knowledge and skills in the field of diagnosis and therapy higher than the other respondents.

All in all, the results of the analysis indicate that the teachers of inclusive schools do not assess their knowledge and skills in the fields of diagnosis and therapy as sufficient, despite the fact that they work with children with diverse educational needs on a daily basis. The question remains, therefore, of what should be done to improve the situation, so that a teacher could feel like “a stimulator and regulator of cognitive activities, […] an autonomous creator in professional activity, rather than the mere implementer of imposed tasks; feel that s/he is able to react flexibly and adequately to different situations and the individuality of students” (Pankowska, 2016, p. 192). What seems to be the most adequate answer at this time is to take pro-standardization measures that would allow the teacher to profile education so as to make it person-oriented rather than program-oriented. Only then would it be possible for teachers to responsibly and flexibly pursue the most important goal – the preparation of the student/child, an autonomous individual, for adult life.
References


